NEW RESEARCH

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PROGRAM & ABSTRACTS

AMERICAN PSYCHIATRIC ASSOCIATION

1999 ANNUAL MEETING

The Clinician

Washington, DC ▪ May 15 - 20, 1999

PROGRAM & ABSTRACTS

PROGRAM
AND
ABSTRACTS ON NEW RESEARCH

IN SUMMARY FORM

152ND ANNUAL MEETING OF THE AMERICAN PSYCHIATRIC ASSOCIATION

WASHINGTON, DC
May 15-20, 1999

SUBCOMMITTEE ON NEW RESEARCH
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The Clinician

American Psychiatric Association
1999 Annual Meeting
Washington, DC • May 15-20, 1999

American Psychiatric Association

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May 15, 1999

Dear Fellow APA Attendees:

On behalf of the members and staff of the Scientific Program Committee, I would like to welcome you to the 1999 New Research Program. This year's program reflects the importance of basic and clinical neuroscience to psychiatry. The sessions are organized by topic and have been expanded to accommodate a myriad of excellent submissions.

The program begins Monday, May 17, at 9:00 a.m. with the first of two Young Investigators' Poster Sessions. It continues at 10:30 a.m. with "Research Advances in Psychiatry: An Update for the Clinician," with special emphasis on depression, neuropsychiatric disorders, eating disorders and schizophrenia. The Young Investigators' Oral/Slide Sessions will begin at 1:00 p.m. on Monday afternoon, followed by a Young Investigators' Poster Session beginning at 3:00 p.m.

The New Research Oral/Slide Sessions will be held Tuesday through Thursday, from 9:00 a.m.-10:30 a.m. Sessions will focus on schizophrenia, personality disorders and stress (Tuesday); mood disorders, depressive disorders and suicidal behavior (Wednesday); and alcohol and drug abuse, and various psychiatric issues (Thursday). Poster Sessions will be held Tuesday and Wednesday from 12 noon-2:00 p.m. and 3:00 p.m.-5:00 p.m. and on Thursday from 12 noon-2:00 p.m. These sessions will be devoted to schizophrenia, neurobiology, neuropsychiatry, biological psychiatry, anxiety, alcohol and substance abuse, suicide, violence, child and adolescent psychiatry, infant and childhood disorders and personality disorders (Tuesday); mood, sexual and gender identity disorders, consultation-liaison and emergency psychiatry, forensic psychiatry, health services and various psychiatric disorders (Wednesday); and psychopharmacology, brain imaging, sleep disorders, and diagnostic issues (Thursday).

The 48 oral/slide papers (including 12 Young Investigators) and 731 poster presentations (including 204 Young Investigators) are a diverse and, we believe, representative sampling of that which is new and significant in psychiatric research. We hope that you will find them informative and provocative.

Sincerely,

Carol A. Tamminga, M.D.
Chairperson
New Research Subcommittee of the
Scientific Program Committee

Outside Reviewers for the New Research Program

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Susan J. Fiester, M.D.
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Arnold J. Friedhoff, M.D.
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Katherine A. Halmi, M.D.
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Donald F. Klein, M.D.
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Michael R. Liebowitz, M.D.
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Juan E. Mezzich, M.D.
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Charles P. O'Brien, M.D.
Godfrey D. Pearlson, M.D.
Teresa A. Pigott, M.D.
Robert M. Post, M.D.
William Z. Potter, M.D.
Frederic M. Quitkin, M.D.
Peter V. Rabins, M.D.
Mark H. Rapaport, M.D.
Murray A. Raskind, M.D.
Phillip J. Resnick, M.D.
Charles F. Reynolds, M.D.
Elliott Richelson, M.D.
Peter P. Roy-Byrne, M.D.
Charles A. Shamoian, M.D.
Larry J. Siever, M.D.
Jonathan M. Silver, M.D.
Barbara Stanley, Ph.D.
James J. Strain, M.D.
Kenneth J. Tardiff, M.D.
James W. Thompson, M.D.
Ming T. Tsuang, M.D.
Gary J. Tucker, M.D.
Joe P. Tupin, M.D.
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Deborah A. Zarin, M.D.

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The following presenters have indicated a significant financial interest or other affiliation with a commercial supporter of the session and/or with the manufacturer(s) of a commercial product(s) and/or provider of commercial service(s). The presenter's name, the manufacturer's name, and the page number(s) the presenter appears on in this *New Research Program & Abstracts Book* are listed below:

Presenter	Manufacturer(s)	Final Program #
Amital, Daniela	U.S. Pharmaceuticals, Pfizer Inc.	NR331
Andersen, Scott W.	Eli Lilly and Company *(employer)*	NR279, NR454
Aupperle, Peter M.	U.S. Pharmaceuticals, Pfizer Inc.	NR526
Bacaltchuk, Josue	Janssen Pharmaceutica and Research Foundation *(employer)*	NR590
Baker, Andrew M.	U.S. Pharmaceuticals, Pfizer Inc. *(employer)*	NR515
Beasley, Jr., Charles M.	Eli Lilly and Company *(employer)*	NR260, NR636, NR637
Blomhoff, Svein	U.S. Pharmaceuticals, Pfizer Inc.	NR650
Boumans, Anthony	Nourypharma *(employer)*	NR478
Brown, Eileen	Eli Lilly and Company *(employer)*	NR568
Bryant-Comstock, Lynda	Glaxo Wellcome Inc. *(employer)*	NR436
Byerly, Matthew J.	Eli Lilly and Company; Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.; Zeneca Pharmaceuticals; Novartis Pharmaceuticals Corporation	NR205
Bystritsky, Alexander	SmithKline Beecham Pharmaceuticals; Bristol-Myers Squibb; Eli Lilly and Company; Solvay Pharmaceuticals, Inc.	NR226
Calabrese, Joseph R.	Abbott Laboratories; Merck & Co., Inc.; Glaxo Wellcome Inc.; Lilly Research Laboratories, a division of Eli Lilly and Company; Parke-Davis, Division of Warner-Lambert Company; SmithKline Beecham Pharmaceuticals; Wyeth-Ayerst Laboratories	NR680
Canive, Jose M.	Otsuka Pharmaceuticals; Hoechst Marion Roussel; Sanofi Pharmaceuticals, Inc.; Eli Lilly and Company; Merck & Co., Inc.	NR217, NR218
Casey, Daniel E.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Novartis Pharmaceuticals Corporation	NR618, NR627
Chatham-Showalter, Peggy E.	Abbott Laboratories; Glaxo Wellcome Inc.; Wyeth-Ayerst Laboratories; U.S. Pharmaceuticals, Pfizer Inc.; Pharmacia & Upjohn Company, Inc.	NR599
Chengappa, K.N. Roy	Abbott Laboratories; Eli Lilly and Company; Zeneca Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Janssen Pharmaceutica and Research Foundation; Rhone-Poulenc Rorer; Johnson and Johnson; Hoechst Marion Roussel; Novartis Pharmaceuticals Corporation	NR234
Citrome, Leslie L.	U.S. Pharmaceuticals, Pfizer Inc.; Zeneca Pharmaceuticals; Janssen Pharmaceutica And Research Foundation	NR307
Clayton, Anita L.H.	Glaxo Wellcome Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; Bristol-Myers Squibb; SmithKline Beecham Pharmaceuticals	NR323
Clouth, Johannes	Eli Lilly and Company *(employer)*	NR261
Coccaro, Emil F.	Eli Lilly and Company; Solvay Pharmaceuticals, Inc.; Merck & Co., Inc.; Forest Laboratories, Inc. Abbott Laboratories	NR361
Cohen, Lee S.	Wyeth-Ayerst Laboratories; SmithKline Beecham Pharmaceuticals; U.S. Pharmaceuticals, Pfizer Inc.; Organon Inc.; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company	NR603
Conley, Robert R.	Eli Lilly and Company; Novartis Pharmaceuticals Corporation; Abbott Laboratories; Zeneca Pharmaceuticals; Zenith-Goldline; Janssen Pharmaceutica and Research Foundation	NR546
Cosgrove, Victoria E.	Roche Laboratories, a member of the Roche Group	NR6
Couvee, Jaap E.	SmithKline Beecham Pharmaceuticals *(employer)*	NR714
Currier, Glenn W.	Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.	NR495, NR496
Daniel, David G.	U.S. Pharmaceuticals, Pfizer Inc.; Abbott Laboratories; Eli Lilly and Company; Otsuka Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Novartis Pharmaceuticals Corporation; Hoechst Marion Roussel	NR241, NR242
Darwish, Mona	Wyeth-Ayerst Laboratories *(employer)*	NR693
David, Stacy R.	Eli Lilly and Company *(employer)*	NR280

Presenter	Manufacturer(s)	Final Program #
Demopulos, Christina M.	Scios Nova Pharmaceuticals	NR473
Dickson, Ruth A.	Novartis Pharmaceuticals Corporation (Canada)	NR262
Dixon, Lisa B.	Abbott Laboratories	NR520
Edell, William S.	Horizon Mental Health Management *(employer)*	NR469
Endicott, Jean	U.S. Pharmaceuticals, Pfizer Inc.	NR709
Entsuah, Richard	Wyeth-Ayerst Laboratories *(employer)*	NR697
Fann, Jesse R.	U.S. Pharmaceuticals, Pfizer Inc.	NR297
Fava, Maurizio	Eli Lilly and Company; SmithKline Beecham Pharmaceuticals; U.S. Pharmaceuticals,Pfizer Inc.; Wyeth-Ayerst Laboratories; Organon Inc.; Bristol-Myers Squibb; Pharmacia & Upjohn Company, Inc.; Glaxo Wellcome Inc.; Knoll Pharmaceuticals; Roche Laboratories, a member of the Roche Group; Synthélabo; Lorex Pharmaceuticals; Solvay Pharmaceuticals, Inc.; Sanofi Pharmaceuticals, Inc.; Litchwer Pharma	NR392, NR430, NR431
Fenton, Wayne S.	Eli Lilly and Company; Janssen Pharmaceutica and Research Foundation	NR604
Ferreri, Maurice	Synthélabo	NR276
Findling, Robert L.	Abbott Laboratories; Eli Lilly and Company; Janssen Pharmaceutica and Research Foundation; Wyeth-Ayerst Laboratories; Bristol-Myers Squibb	NR383
Fisher, Kathleen M.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.; Novartis Pharmaceuticals Corporation; Glaxo Wellcome Inc.; Manor Health Care	NR306
Flament, Martine F.	U.S. Pharmaceuticals, Pfizer Inc.	NR472
Frankenburg, Frances R.	Novartis Pharmaceuticals Corporation; Abbott Laboratories; Eli Lilly and Company	NR398
Frenchman, I. Barton	Janssen Pharmaceutica and Research Foundation; McNeil Pharmaceuticals; Abbott Laboratories; Parke-Davis, Division of Warner-Lambert Company	NR506
Friedman, Joseph H.	Zeneca Pharmaceuticals	NR699
Gadde, Kishore M.	U.S. Pharmaceuticals, Pfizer Inc.; Glaxo Wellcome Inc.; Forest Laboratories, Inc.	NR634
Ghanbari, Hossein A.	Mymox Pharmaceutical Corporation *(employer)*	NR620
Ghatavie, Kayhan R.	Physicians Services Incorporated	NR8
Goldberg, Joseph F.	Abbott Laboratories; Glaxo Wellcome Inc.; Eli Lilly and Company	NR368, NR418
Goodale, Elizabeth	Glaxo Wellcome Inc. *(employer)*	NR651
Goodnick, Paul J.	Glaxo Wellcome Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Bristol-Myers Squibb	NR654, NR655
Grcevich, Stephen	Shire-Richwood Pharmaceuticals	NR373
Greist, John H.	Abbott Laboratories; Glaxo Wellcome Inc.; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; Organon Inc.; Parke-Davis, Division of Warner Lambert Company; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Solvay Pharmaceuticals, Inc.; Watson Laboratories, Inc.; Bristol-Myers Squibb; Hoffman-LaRoche; Novartis Pharmaceuticals Corporation; Wyeth-Ayerst Laboratories; Healthcare Technology Systems *(employer)*	NR214, NR602
Grilo, Carlos M.	National Institutes of Health; Eli Lilly and Company	NR619
Grossberg, George T.	Novartis Pharmaceuticals Corporation	NR564
Guelfi, Julien-Daniel	U.S. Pharmaceuticals, Pfizer Inc.	NR461
Gulati, Mangla S.	Schering Plough	NR11
Hackett, David	Wyeth-Ayerst Laboratories *(employer)*	NR336
Hamlin, Cary L.	U.S. Pharmaceuticals, Pfizer Inc.	NR623
Hamner, Mark B.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; Zeneca Pharmaceuticals; U.S. Pharmaceuticals, Pfizer Inc.; Otsuka Pharmaceuticals; Novartis Pharmaceuticals Corporation; Eli Lilly and Company	NR625
Harvey, Philip D.	Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; Hoechst Marion Roussel	NR221
Hellerstein, David J.	U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; Dista Products; Glaxo Wellcome Inc.; Bristol-Myers Squibb; Wyeth-Ayerst Laboratories	NR610
Hellewell, Jonathan S.E.	Zeneca Pharmaceuticals	NR653
Hirsch, Alan R.	Bloomingdales; Federated Department Stores; Hilton; Helene Curtis; Bristol-Myers Squibb; Marion-Merrell Dow; Parke-Davis, Division of Warner-Lambert Company; Pepsi; Coke; McDonald's; Taco Bell; Macy's; Popai; 7-11 Corporation; Wyeth-Ayerst Laboratories; Glaxo Wellcome Inc.; Eli Lilly and Company; Nutrition for Life; Thinscents; Kenn-el Ration; Pardigm Health Corporation; Pepperidge Farms; Croma Microencapsulados; Pharmacia & Upjohn Company, Inc.; Ciba Geigy Corporation, Pharmaceutical Division; Aromatech; Johnson and Johnson; Environmental Protection Agency; Boston Public Health Department; Attorney General's Office; State Department; Circuit Court of Cook County; Encyclopedia Britannica; Motorola Corporation; Brawney Bag; Unilever; IFF; Channel; Toberlone; Brach Candy Co.; Slimscents;	

Presenter	Manufacturer(s)	Final Program #
	Inscentivation; Advanced Nutritional Technology; Bakers Square; California SunCare Products; F-Matic; Syntex; Sears; 3-M Corporation; Cinnabon; Bath & Body Works; The Alexis Group; First Alert; Galleria Malls; Abbott Laboratories; National Retail Federation; H_20 +; ABC; Medella: Ottawa Leather; Nike; Aromysis; NSA; Technical Concepts; Orville Reddenbocker; Eddys-Dryers Ice Cream; Miller Brewing Company; Fragrance Technologies	NR505
Hirsch, Steven R.	U.S. Pharmaceuticals, Pfizer Inc.	NR254
Hirschfeld, Robert M.A.	Abbott Laboratories; Bristol-Myers Squibb; Glaxo Wellcome Inc.; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Forest Laboratories, Inc.; Eli Lilly and Company; Novartis Pharmaceuticals Corporation; SmithKline Beecham Pharmaceuticals; Pharmacia & Upjohn Company, Inc.; Parke-Davis, Division of Warner-Lambert Company	NR686, NR687
Hussain, Parrukh	Pharmacia & Upjohn Company, Inc.	NR169
Janicak, Philip G.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.; Zeneca Pharmaceuticals; Wyeth-Ayerst Laboratories; SmithKline Beecham Pharmaceuticals; Eli Lilly and Company; Glaxo Wellcome Inc.; Novartis Pharmaceuticals Corporation	NR694
Judge, Rajinder A.	Eli Lilly and Company *(employer)*	NR663
Keck, Jr., Paul E.	Abbott Laboratories; Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Zeneca Pharmaceuticals; Parke-Davis, Division of Warner-Lambert Company; Merck & Co., Inc.	NR282, NR451
Keitner, Gabor I.	Bristol-Myers Squibb; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.	NR616
Keller, Martin B.	U.S. Pharmaceuticals, Pfizer Inc.; Bristol-Myers Squibb; Forest Laboratories, Inc.; Wyeth-Ayerst Laboratories; SmithKline Beecham Pharmaceuticals; Pharmacia & Upjohn Company, Inc.; Eli Lilly and Company; Organon Inc.; Merck & Co., Inc.	NR405
Kellner, Charles H.	Somatics; Mecta	NR507
Kelly, Deanna L.	Zenith-Goldine; Janssen Pharmaceutica and Research Foundation	NR554
Kennedy, John S.	Eli Lilly and Company *(employer)*	NR255
Kennedy, Sidney H.	Roche Laboratories, a member of the Roche Group; U.S. Pharmaceuticals, Pfizer Inc.; Wyeth-Ayerst Laboratories; SmithKline Beecham Pharmaceuticals	NR422
Kinon, Bruce	Eli Lilly and Company *(employer)*	NR258, NR259
Koran, Lorrin M.	Solvay Pharmaceuticals, Inc.; Eli Lilly and Company; Bristol-Myers Squibb; Sanofi Pharmaceuticals, Inc.; Akzo-Nobel; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.	NR645, NR646
Kozma, Chris M.	Astra/Merck Group, Division of Merck & Co.; Allergan; Glaxo Wellcome Inc.; Genentech; Janssen Pharmaceutica and Research Foundation	NR548
Krishnan, K. Ranga R.	Novartis Pharmaceuticals Corporation	NR538
Kumar, Vinod	Novartis Pharmaceuticals Corporation; Bayer Corporation, Pharmaceutical Division; U.S. Pharmaceuticals, Pfizer Inc.; Parke-Davis, Division of Warner-Lambert Company; Forest Laboratories, Inc.; Hoffman-LaRoche	NR638, NR639
Kutcher, Stanley P.	Eli Lilly and Company; Abbott Laboratories; Bristol-Myers Squibb; U.S. Pharmaceuticals, Pfizer Inc.; Lundbeck; Boehringer Ingelheim; Wyeth-Ayerst Laboratories; Hoffman-LaRoche; SmithKline Beecham Pharmaceuticals	NR726
Labbate, Lawrence A.	Glaxo Wellcome Inc.	NR499
Lindenmayer, Jean-Pierre	Novartis Pharmaceuticals Corporation; Eli Lilly and Company	NR267
Littrell, Kimberly H.	Eli Lilly and Company; Janssen Pharmaceutica and Research Foundation	NR551
Londborg, Peter D.	Glaxo Wellcome Inc.	NR442
Loonen, Anton J.N.	Nourypharma; Bristol-Myers Squibb; U.S. Pharmaceuticals, Pfizer Inc.	NR700
Loosbrock, Danielle L.	Eli Lilly and Company *(employer)*	NR470
Lustman, Patrick J.	U.S. Pharmaceuticals, Pfizer Inc.	NR408, NR517
Lydiard, R. Bruce	Bristol-Myers Squibb; Eli Lilly and Company; Glaxo Wellcome Inc.; Parke-Davis, Division of Warner-Lambert Company; U.S. Pharmaceuticals, Pfizer Inc.; Roche Laboratories, a member of the Roche Group; SmithKline Beecham Pharmaceuticals; Pharmacia & Upjohn Company, Inc.	NR316, NR439
Mahmoud, Ramy A.	Janssen Pharmaceutica and Research Foundation *(employer)*	NR550, NR707
Marin, Deborah B.	Novartis Pharmaceuticals Corporation	NR62
Martinez, James M.	U.S. Pharmaceuticals, Pfizer Inc.	NR136
Mason, Barbara J.	U.S. Pharmaceuticals, Pfizer Inc.; Dupont Pharma	NR609
McCarthy, Meghan	Novartis Pharmaceuticals Corporation	NR273
McGurk, Susan R.	Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.	NR268
Menza, Matthew A.	U.S. Pharmaceuticals, Pfizer Inc.	NR426
Meyers, Barnett S.	Forest Laboratories, Inc.	NR534
Michelson, David	Eli Lilly and Company *(employer)*	NR453, NR692
Montgomery, Stuart A.	Lundbeck	NR669
Morriss, Richard K.	North Western Regional Health Authority	NR481
Mossman, Douglas	Parke-Davis, Division of Warner-Lambert Company	NR503

Presenter	Manufacturer(s)	Final Program #
Nasrallah, Henry A.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Zeneca Pharmaceuticals	NR666
Nicholas, Linda M.	Glaxo Wellcome Inc.; U.S. Pharmaceuticals, Pfizer Inc.	NR626
Nierenberg, Andrew A.	Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Wyeth-Ayerst Laboratories; Organon Inc.; Bristol-Myers Squibb; Sanofi Pharmaceuticals, Inc.	NR395, NR407
Nightengale, Brian	Novartis Pharmaceuticals Corporation; Forest Laboratories, Inc.; Glaxo Wellcome Inc.; Abbott Laboratories; SmithKline Beecham Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Merck & Co., Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Parke-Davis, Division of Warner-Lambert Company;	NR549
Nolting, Arno	Forest Laboratories, Inc. *(employer)*	NR668
Numberg, H. George	U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; SmithKline Beecham Pharmaceuticals; Bristol-Myers Squibb; Abbott Laboratories; Glaxo Wellcome Inc.	NR595
Okpaku, Samuel O.	Abbott Laboratories; Bristol-Myers Squibb	NR354
Ontiveros, Alfonso	Roche Laboratories, a member of the Roche Group; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Pharmacia & Upjohn Company, Inc.; Wyeth-Ayerst Laboratories; Eli Lilly and Company	NR463
O'Sullivan, Richard L.	U.S. Pharmaceuticals, Pfizer Inc. *(employer)*	NR440
Ott, Geoffrey E.	Glaxo Wellcome Inc.	NR16
Phariss, Bruce W.	32 B/J Health Fund	NR393
Phillips, Katharine A.	Eli Lilly and Company; Gate Pharmaceuticals	NR312, NR313
Pliszka, Steven R.	Shire-Richwood Pharmaceuticals	NR596
Pollack, Mark H.	Bristol-Myers Squibb; Forest Laboratories, Inc.; Eli Lilly and Company; Parke-Davis, Division of Warner-Lambert Company; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Solvay Pharmaceuticals, Inc.; Wyeth-Ayerst Laboratories	NR322
Posada, Ana C.	Glaxo Wellcome Inc.	NR109
Post, Robert M.	Abbott Laboratories; Glaxo Wellcome Inc.; Eli Lilly and Company; Parke-Davis, Division of Warner-Lambert Company	NR381
Rapaport, Mark H.	U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Wyeth-Ayerst Laboratories; Janssen Pharmaceutica and Research Foundation; Solvay Pharmaceuticals, Inc.; Forest Laboratories, Inc.; Eli Lilly and Company; Glaxo Wellcome Inc.; Parke-Davis, Division of Warner-Lambert Company; Novartis Pharmaceuticals Corporation	NR337
Reilly-Harrington, Noreen A.	Glaxo Wellcome Inc.; Abbott Laboratories	NR18
Reinstein, Michael J.	Novartis Pharmaceuticals Corporation; Zeneca Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company	NR629, NR630
Riesgo, Dr. Yolanda	Wyeth-Ayerst Laboratories *(employer)*	NR484
Risch, Samuel C.	Abbott Laboratories; Glaxo Wellcome Inc.; Hoechst Marion Roussel; Janssen Pharmaceutica and Research Foundation; Otsuka Pharmaceuticals; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Wyeth-Ayerst Laboratories; Zeneca Pharmaceuticals; Eli Lilly and Company; Novartis Pharmaceuticals Corporation; Searle	NR248
Robinson, Jr., Donald W.	Merck Medco Managed Care *(employer)*	NR116
Rosen, Raymond	U.S. Pharmaceuticals, Pfizer Inc.; Scherling Plough; TAP Pharmaceuticals; Eli Lilly and Company; Merck & Co., Inc.	NR598
Rosenthal, Richard N.	Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.	NR341
Rothbaum, Barbara	U.S. Pharmaceuticals, Pfizer Inc.	NR310
Rothschild, Anthony J.	Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Glaxo Wellcome Inc.; Abbott Laboratories; Bristol-Myers Squibb; Janssen Pharmaceutica and Research Foundation; SmithKline Beecham Pharmaceuticals; Pharmacia & Upjohn Company, Inc.	NR684
Rudolph, Richard L.	American Home Products *(employer)*	NR691
Rush, A. John	Bristol-Myers Squibb; Eli Lilly and Company; Glaxo Wellcome Inc.; Janssen Pharmaceutica and Research Foundation; Novartis Pharmaceuticals Corporation; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Pharmacia & Upjohn Company, Inc.; Wyeth-Ayerst Laboratories; Abbott Laboratories; Forest Laboratories, Inc.; Parke-Davis, Division of Warner-Lambert Company; SmithKline Beecham Pharmaceuticals	NR468
Russell, James M.	U.S. Pharmaceuticals, Pfizer Inc.	NR523
Russo, Patricia	Eli Lilly and Company	NR284
Ryan, Christine E.	Bristol-Myers Squibb; Eli Lilly and Company	NR475
Sajatovic, Martha	Zeneca Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; Bristol-Myers Squibb	NR257, NR456
Sandoval, Felipe	U.S. Pharmaceuticals, Pfizer Inc.	NR541
Sanger, Todd M.	Eli Lilly and Company *(employer)*	NR444

Presenter	Manufacturer(s)	Final Program #
Sasson, Yehuda	U.S. Pharmaceuticals, Pfizer Inc.	NR715
Scharf, Martin	Wyeth-Ayerst Laboratories	NR725
Schmidt, Mark E.	Eli Lilly and Company *(employer)*	NR679
Schmidt, Peter J.	National Institute of Mental Health *(employer)*	NR565
Schneider, Lon S.	Parke-Davis, Division of Warner-Lambert Company; U.S. Pharmaceuticals, Pfizer Inc.; Novartis Pharmaceuticals Corporation; Bayer Corporation, Pharmaceutical Division; Janssen Pharmaceutica and Research Foundation; Abbott Laboratories; Eisai Inc.	NR675
Seedat, Soraya	Medical Research Council of South Africa	NR52
Shad, Mujeeb U.	U.S. Pharmaceuticals, Pfizer Inc.; Bristol-Myers Squibb; Janssen Pharmaceutica and Research Foundation; Organon Inc.; Wyeth-Ayerst Laboratories; Abbott Laboratories; Hoechst Marion Roussel; U.S. Pharmaceuticals, Pfizer Inc.; Merck & Co., Inc.; Lundbeck	NR648
Sharma, Rajiv P.	Forest Laboratories, Inc.; Parke-Davis, Division of Warner-Lambert Company	NR286
Sharma, Tonmoy	Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; Novartis Pharmaceuticals Corporation	NR231, NR232
Sharma, Verinder	U.S. Pharmaceuticals, Pfizer Inc.; Glaxo Wellcome Inc.; Eli Lilly and Company	NR359, NR696
Simansky, Kenny J.	U.S. Pharmaceuticals, Pfizer Inc.	NR243
Simpson, George M.	Janssen Pharmaceutica and Research Foundation; U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; Novartis Pharmaceuticals Corporation; Zeneca Pharmaceuticals	NR244
Skotzko, Christine E.	U.S. Pharmaceuticals, Pfizer Inc.	NR493
Slaughter, James R.	U.S. Pharmaceuticals, Pfizer Inc.	NR403
Smith, Graeme C.	SmithKline Beecham Pharmaceuticals (Australia)	NR78
Stahl, Stephen M.	Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; Forest Laboratories, Inc.; Solvay Pharmaceuticals, Inc.; Janssen Pharmaceutica and Research Foundation; Bayer Corporation, Pharmaceutical Division; Yamanouchi; Glaxo Wellcome Inc.; Wyeth-Ayerst Laboratories; Bristol-Myers Squibb; Roche Laboratories, a member of the Roche Group; Ciba Geigy Corporation, Pharmaceutical Division; Pharmacia & Upjohn Company, Inc.; Hoechst Marion Roussel; Takeda Pharmaceuticals; Abbott Laboratories; Organon Inc.; Neurocrine Biosciences, Inc.	NR695
Stein, Dan J.	Research Unit on Anxiety and Stress Disorders (South Africa)	NR326, NR327
Steiner, Meir	St. Joseph's Hospital *(employer);* Eli Lilly and Company	NR569
Stern, Robert G.	Eli Lilly and Company; U.S. Pharmaceuticals, Pfizer Inc.; Janssen Pharmaceutica and Research Foundation	NR239, NR240
Stern, Stephen L.	Wyeth-Ayerst Laboratories; Forest Laboratories, Inc.; Parke-Davis, Division of Warner-Lambert Company	NR527
Street, Jamie S.	Eli Lilly and Company *(employer)*	NR562
Tariot, Pierre N.	U.S. Pharmaceuticals, Pfizer Inc.; Eisai Inc.; Novartis Pharmaceuticals Corporation; Bayer Corporation, Pharmaceutical Division; Zeneca Pharmaceuticals	NR542
Thase, Michael E.	Bristol-Myers Squibb; Eli Lilly and Company; Forest Laboratories, Inc.; Glaxo Wellcome Inc.; Cerenex; Merck & Co., Inc.; Organon Inc.; U.S. Pharmaceuticals, Pfizer Inc.; Pharmacia & Upjohn Company, Inc.; Wyeth-Ayerst Laboratories; Lipha Pharmaceuticals, Inc.; SmithKline Beecham Pharmaceuticals; Solvay Pharmaceuticals, Inc.	NR640
Tohen, Mauricio F.	Eli Lilly and Company *(employer)*	NR428, NR429
Tollefson, Gary D.	Eli Lilly and Company *(employer)*	NR455
Tran, Pierre V.	Eli Lilly and Company *(employer)*	NR235, NR 236
Van Ameringen, Michael A.	U.S. Pharmaceuticals, Pfizer Inc.; Solvay Pharmaceuticals, Inc.; SmithKline Beecham Pharmaceuticals; Bristol-Myers Squibb	NR330
Velligan, Dawn I.	Eli Lilly and Company; Zeneca Pharmaceuticals; Janssen Pharmaceutica and Research Foundation; Novartis Pharmaceuticals Corporation	NR633
Versiani, Marcio V.	Pharmacia & Upjohn Company, Inc.	NR435
Volavka, Jan	Janssen Pharmaceutica and Research Foundation; Novartis Pharmaceuticals Corporation	NR662
Walsh, B. Timothy	Eli Lilly and Company	NR591
Warnock, Julia K.	U.S. Pharmaceuticals, Pfizer Inc.	NR289, NR644
Weiden, Peter J.	U.S. Pharmaceuticals, Pfizer Inc.; Eli Lilly and Company; Janssen Pharmaceutica and Research Foundation	NR251, NR252
Wiart, Laurent	Eli Lilly and Company	NR180
Weiser, Mark	Eli Lilly and Company	NR220; NR676
Wilson, Jacquelyn G.	Janssen Pharmaceutica and Research Foundation	NR690

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Presenter	Manufacturer(s)	Final Program #
Wirshing, Donna A.	Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company; Hoechst Marion Roussel; Novartis Pharmaceuticals Corporation; U.S. Pharmaceuticals, Pfizer Inc.; Merck & Co., Inc.; Sanofi Pharmaceuticals, Inc.; Otsuka Pharmaceuticals; Organon Inc.; Zeneca Pharmaceuticals	NR264
Wulsin, Lawson R.	SmithKline Beecham Pharmaceuticals	NR498
Yonkers, Kimberly A.	Eli Lilly and Company; Glaxo Wellcome Inc.; U.S. Pharmaceuticals, Pfizer Inc.; SmithKline Beecham Pharmaceuticals; American Home Products; Wyeth-Ayerst Laboratories	NR570
Zarate, Jr., Carlos A.	Abbott Laboratories; Janssen Pharmaceutica and Research Foundation; Eli Lilly and Company	NR683
Zimmer, Ben	Wyeth-Ayerst Laboratories; U.S. Pharmaceuticals, Pfizer Inc.; Bristol-Myers Squibb	NR539
Zisook, Sidney	Glaxo Wellcome Inc.	NR667

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Benkert, Otto NR466
Benzo, Jose NR53
Castrogiovanni, Paolo NR46
Croft, Harry A. NR457
Di Muro, Angela NR47
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NEW RESEARCH

Monday, May 17, 1999, 9:00 a.m.–10:30 a.m.

New Research 1 – Poster Session – Hall D, Lower Level, Convention Center

YOUNG INVESTIGATORS' POSTER SESSION

Moderator: Carol A. Tamminga, M.D.

NR1 Group Treatment and the Role of Depression in OCD
David M. Direnfeld, M.A., Michele T. Pato, M.D., Susan Gunn, R.N.

NR2 Therapeutic Alliance and Psychodynamic Therapy
Laurent Lesgourgues, M.D., Christine Sarramon, M.D., Genevieve Sterck, M.D., Laurent J. Schmitt, M.D.

NR3 Depression Following Myocardial Infarction: A Primary Investigation of Some Risk Factors
Jacqueline J. Strik, M.D., Maurice Ballieux, M.D., Richel Lousberg, Ph.D., Adriaan Honig, M.D., Petra M. Kuijpers, M.D., Hein J. Wellens, Ph.D., Herman M. Van Praag, M.D.

NR4 Examination in a Population-Based Study: Symptoms, Course and Risk Factors
Li-Shiun Chen, M.D., William Eaton, Ph.D., Joseph J. Gallo, M.D., Gerald Nestadt, M.D., Rosa M. Crum, M.D.

NR5 Course of Bipolar Disorder in a South-Indian Community
Mohit P. Chopra, M.D., Kishore K. Kumar, M.D., Sanjeevani Jain, M.D., Murthy R. Srinivasa, M.D.

NR6 A Double-Blind, Placebo-Controlled Study of Clonazepam As an Adjunct to Lithium Maintenance Treatment of Bipolar Disorder
Victoria E. Cosgrove, B.A., S. Nassir Ghaemi, M.D., Claudia F. Baldassano, M.D., Christina M. Demopulos, M.D., Gary S. Sachs, M.D.

NR7 Methodologies for Maintenance Studies in Bipolar Disorder: The Enriched Design
Sara R. Gaughan, A.B., S. Nassir Ghaemi, M.D., Gary S. Sachs, M.D.

NR8 Defining Guilt in Depression: A Comparison of Subjects with Major Depression, Chronic Medical Illness and Healthy Controls
Kayhan R. Ghatavie, M.D., Anthony J. Levitt, M.D.

NR9 Reliability of Retrospective Life Charts for Rapid-Cycling Bipolar Patients
Constance Guille, B.A., Sara R. Gaughan, A.B., Christina M. Demopulos, M.D., Gary S. Sachs, M.D.

NR10 Gabapentin Versus Placebo As Adjunctive Treatment for Acute Mania and Mixed States in Bipolar Disorder
Constance Guille, B.A., Christina M. Demopulos, M.D., Amy E. Shriver, B.S., Gary S. Sachs, M.D.

NR11 SSRI Treatment of Alpha Interferon-Induced Depression
Mangla S. Gulati, M.D., Susan A. Reed, M.S.N., Mitchel A. Kling, M.D., Robert L. Kane, Ph.D., Elliott Siegel, M.D., Hermant K. Pandey, M.D., Peter Hauser, M.D.

NR12 T3 Levels and Treatment Response to Fluoxetine in Depression
Dan V. Iosifescu, M.D., Shauna Howarth, B.A., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., John J. Worthington III, M.D., Maurizio Fava, M.D.

NR13 The Perimenopause Is a Period of Risk for Depressive Symptoms in Middle-Aged Women
Hadine Joffe, M.D., Lee S. Cohen, M.D., John Hennen, Ph.D., Karen Carlson, M.D.

NR14 The Mathematics of Mood Variation
David M. Kreindler, M.D., Charles J. Lumsden, Ph.D.

NR15 Lamotrigine in Treatment-Refractory Bipolar Disorder: A Brazilian Experience
Beny Lafer, M.D., Renata S. Tamada, M.D., Cilly K. Issler, M.D., Jose A.M.S. Amaral, M.D.

NR16 The Effects of Bupropion SR on the Subjective Sleep Quality of Depressed Patients
Geoffrey E. Ott, B.A.S., Russell E. Poland, Ph.D.

NR17 Do NEO Personality Traits Fluctuate Across Mood States in Rapid-Cycling Bipolar Patients?
Sharon H. Rackow, B.A., Christina M. Demopulos, M.D., Noreen A. Reilly-Harrington, Ph.D., Gary S. Sachs, M.D.

NR18 Cognition and Stress in Bipolar and Unipolar Disorder
Noreen A. Reilly-Harrington, Ph.D., David M. Fresco, M.A., Lauren B. Alloy, Ph.D., Wayne G. Whitehouse, Ph.D.

NR19 Compliance of Bipolar Patients with Follow-Up
Syed W.H. Rizvi, M.D., Steve J. Brasington, M.D., Armin Ansari, M.D., Lisa Fore Arcand, Ed.D.

NR20 Life Events and Season in Predicting Depression
Dena G. Rosenberg, Ph.D., Sheri L. Johnson, Ph.D.

NR21 Reversed Neurovegetative Symptoms and Seasonality in Bipolar, Seasonal and Unipolar Depression
Marnie R. Sambur, B.A., Jonathan Sporn, M.D., Dan A. Oren, M.D., S. Nassir Ghaemi, M.D., Paul H. Desan, M.D.

NR22 The Role of Gender and Comorbid Anxiety in Suicidal Ideation in Major Depression
Ayal Schaffer, M.D., Anthony J. Levitt, M.D., R. Michael Bagby, Ph.D., Sidney H. Kennedy, M.D.

NR23 Psychiatric Disorders in Children of Bipolar Patients Versus Controls: Preliminary Results
Cesar A. Soutullo, M.D., Melissa P. Del Bello, M.D., Leah S. Casuto, M.D., Kathleen Lake, M.S.W., Sarah M. Graman, B.A., Patricia McDonough-Ryan, M.A., Susan L. McElroy, M.D., Stephen M. Strakowski, M.D., Paul E. Keck, Jr., M.D.

NR24 Thrombocytosis in Depression
Paulo J. Negro, Jr., M.D.

NR25 The Influence of Additional Antidepressive Medication on the Assimilation Process of Problematic Experiences in Psychotherapy
Ludwig Teusch, M.D., Hildegard Boehme, Jobst Fine, M.D., Markus Gastpar, M.D.

NR26 Arginine Vasopressin-Neurophysin in Depressed Suicide Attempters and DST
William Pitchot, Ph.D., Marc M. Ansseau, Ph.D., Jean-Jacques Legros, Ph.D.

NR27 Premenstrual Symptoms and Suicide Attempts
Enrique Baca-Garcia, M.D., Carmen Diaz-Sastre, M.D., Antonio Ceferino, M.D., Silvia Zabala, M.D., Jose de Leon, M.D., Jeronimo Saiz-Ruiz, M.D.

NR28 Youth Suicide Among Hispanic and Anglo Males in Dade County, Florida, 1978-1996
Amparo B. Benitez, D.O., Daniel Castellanos, M.D., Maria D.D. Llorente, M.D.

NR29 Clinical and Psychological Risk Profile of Suicide Attempters
Cesar Fernandez, M.D., Pilar A. Saiz, M.D., Juan C. Gonzalez-Seijo, Ph.D., Maria P. Gonzalez, Ph.D., Yolanda Ramos, Ph.D., Julio B. Bobes, M.D.

NR30 Suicide Following Assessment at a Psychiatric Hospital
Heidi H.J.V. Lee, M.D., Jose M. Pena, M.D., Donna M. Mancuso, M.D.

NR31 Suicide in Travis County, Texas (1996-1997)
Siging Li, M.D., Beilin Gao, M.D., Lawrence A. Hauser, M.D.

NR32 The Clinical Significance of Tricyclics Versus SSRIs in Overdose: A Retrospective Study
Robert C. Stone, D.O., William J. Meek, M.D.

NR33 Elderly Suicidal Behavior in Buenos Aires, Argentina
Guillermo J. Tortora, M.D., Miguel Marquez, M.D., Alicia Sotelo Lago, M.D., Liliana Florio, Ph.D., Ignacio Brusco, M.D., Ronald Falcon, M.D., Claudia Rodriguez, M.D.

NR34 Adolescent Suicides in Buenos Aires and Mendoza, Argentina During 1994-1997
Guillermo J. Tortora, M.D., Benigno Gutierrez, M.D., Graciela Nazar, M.D., Edith M. Serfaty, M.D., Liliana Florio, Ph.D., Alicia Sotelo Lago, M.D., Adriana Portas, M.D.

NR35 Trends in Psychiatric Hospitalization of Youth: How Do Children and Adolescents Differ?
Ross B. Andelman, M.D., Donna D. McAlpine, M.A., Kathleen J. Pottick, Ph.D.

NR36 Drugs in Partyland: Patterns of Substance Use at Circuit Parties
Steven J. Lee, M.D., David M. McDowell, M.D., Herbert D. Kleber, M.D.

NR37 Carbamazepine for Cocaine Dependence: A Systematic Review
Anelise R. Lima, M.D., Mauricio S. Lima, Ph.D., Bernardo G.O. Soares, M.D., Michael Farrell, M.D.

NR38 Characteristics of Heroine Addicts with Brothers Who Are Also Addicts
Dr. Enriqueta Ochoa, Agustin Madoz-Garpide, Enrique Baca-Garcia, M.D., Antonio Ceverino, Dr. Natividad Vicente

NR39 Drug Consumption and Psychological Profile in Secondary Students
Pilar A. Saiz, M.D., Maria P. Gonzalez, Ph.D., Luis Jimenez, M.D., Juan M. Fernandez, M.D., Celso Iglesias, Ph.D., Julio B. Bobes, M.D.

NR40 Toxicological and Psychological Profile of MDMA Abusers in Military Conscripts
Pilar A. Saiz, M.D., Maria P. Gonzalez, Ph.D., Manuel V. Bousono-Garcia, M.D., Julio B. Bobes, M.D., Una D. McCann, M.D., George A. Ricaurte, Ph.D.

NR41 Comorbid Alcoholism and Mania: A More Severe Illness
Laura K. Sherman, M.D., Laura J. Bierut, M.D., Henri Begleiter, M.D., Ray Crowe, M.D., Victor Hesselbrock, Ph.D., John I. Nurnberger, Jr., M.D., Bernice Porjesz, Ph.D.

NR42 Smokeless Tobacco Use Among Addiction Patients
Maria I. Lapid, M.D., Lois E. Krahn, M.D., Lisa Cox, Ph.D.

NR43 Pathological Gambling: Addiction or Obsession
Angela Ibanez, M.D., Carlos Blanco-Jerez, M.D., Carlos Govantes, M.D., Jeronimo Saiz-Ruiz, M.D.

NR44 Anxiety and MDDs and the Five-Factor Model of Personality
Oscar J. Bienvenu III, M.D., Gerald Nestadt, M.D., Jack F. Samuels, Ph.D., Gregory Bovasso, Ph.D., Paul T. Costa, Ph.D., Jeffrey Herbst, Ph.D., William Eaton, Ph.D.

NR45 Anxiety Disorders and the Five-Factor Model of Personality
Joseph D. Bleier, B.A., Helit Atar-Greenfield, B.A., Marjan Ghahramanlou, M.A., Regina Vcello, M.A., Carrie Beckstein, M.A., Juliana R. Lachenmeyer, Ph.D.

NR46 Comorbidity in Social Phobia
Paolo Castrogiovanni, M.D., Angela Di Muro, M.D., Claudia Pacchierotti, M.D.

NR47 Obsessive-Compulsive Dimensions
Angela Di Muro, M.D., Arianna Goracci, M.D., Livia Luccarelli, M.D., Giovanna Pacciani, M.D., Paolo Castrogiovanni, M.D.

NR48 Effects of Estrogen on Behavioral Anxiety and Corticotropin Releasing Hormone mRNA Levels in Rats
David H. Jho, B.A., Margaret Altemus, M.D.

NR49 Personality in OCD: A Five-Factor Description
Yung-Mei Leong, M.A., Benjamin D. Greenberg, M.D., David J. Keuler, Ph.D., Gabriela Cora-Locatelli, M.D., Julie I. Lu, B.A., Margaret Altemus, M.D., Dennis L. Murphy, M.D.

NR50 PTSD, Memory and Dissociation
Miguel Marquez, M.D., Ignacio Brusco, M.D., Guillermo J. Tortora, M.D., Angel Goldfarb, Ph.D.

NR51 The Spectrum of Social Phobia
Miguel Marquez, M.D., Guillermo J. Tortora, M.D., Ignacio Brusco, M.D.

NR52 Inositol Augmentation of SSRIs in Treatment-Resistant OCD
Soraya Seedat, M.D., Dan J. Stein, M.D.

NR53 Double-Blind Comparison of Sertraline and Imipramine in Patients with Panic Disorder
Jose Benzo, M.D.

NR54 Somatization in a Sample of Panic and OCD Outpatients
Marjan Ghahramanlou, M.A.

NR55 Medication-Induced Complications Occurring During the Treatment of Geriatric Bipolar Patients
Janet C. Conney, M.D.

NR56 Which Elderly Patients Relapse Quickly After ECT?
Robert M. Davis, M.D., Paul A. Kettl, M.D.

NR57 ECT in the Elderly: Does Age Affect Outcome?
Robert M. Davis, M.D., Paul A. Kettl, M.D.

NR58 Psychiatric Assessment of a Nursing Home Population Using Audio-Visual Telecommunication
Phillip M. Grob, M.D., Daniel Weintraub, M.D., David A. Sayles, M.D., Allen Raskin, Paul E. Ruskin, M.D.

NR59 Is There an Association Between Shortening Length of Stay and Readmission Rate on a Psychogeriatric Unit?
Oscar R. Heeren, M.D., Lisa B. Dixon, M.D., William T. Regenold, M.D.

NR60 Age Effects of Substance Abuse in Inpatients
Prasad V. Kondapavuluru, M.D., Anthony F. Lehman, M.D., Allen Raskin, Paul E. Ruskin, M.D.

NR61 Quality-of-Life Patterns in Elderly Inpatient Populations
Popuri M. Krishna, M.D., Anthony F. Lehman, M.D., Alan Raskin, Ph.D., Paul E. Ruskin, M.D.

NR62 Longitudinal Validation of an Instrument That Measures Time Spent Caregiving for Patients with Alzheimer's Disease
Deborah B. Marin, M.D., Micheline Dugue, M.D., James Schmeidler, Ph.D., Kenneth L. Davis, M.D.

NR63 Prevalence and Usage of Benzodiazepines in Frail, Home-Bound Elderly
Maria A. Umbert, M.D., Jairo Fernandez, M.D., Maria D.D. Llorente, M.D., Michael A. Silverman, M.D., Adam G. Golden, M.D., Scott Barnett, Ph.D., Kamal Hamdan, M.D.

NR64 Tolerability and Efficacy of Atypical Antipsychotics in Male Geriatric Inpatients
Swapna K. Verma, M.D., Claudia A. Orengo, M.D., Mark E. Kunik, M.D., Victor Molinari, Ph.D., Danielle Hale, M.S.

NR65 Maternal Postpartum Depression: Effects on Infants' Neuroendocrine Stress Reactions
Yolanda P. Graham, M.D., Sherryl H. Goodman, Ph.D., Zachary N. Stowe, M.D., Paul Plotsky, Michelle Robbins, M.S., Charles B. Nemeroff, M.D.

NR66 Factors Affecting Psychotropic Medication Use in Children with Pervasive Developmental Disorders
Kaan R. Ozbayrak, M.D.

NR67 Institutionalized Children in East Asia
Constance M. Chen, M.P.H., Yueqin Huang, M.D., Lynne C. Huffman, M.D., Liming Lee, M.D., David Spiegel, M.D.

NR68 Changes in Autonomic Regulation with Age
Cathryn A. Galanter, M.D., Gail Wasserman, Ph.D., Richard P. Sloan, Ph.D., Daniel S. Pine, M.D.

NR69 Desipramine: Age Changes Differing Degrees of Side Effects and Vital Signs
Cathryn A. Galanter, M.D., Carina Bilich, B.A., B. Timothy Walsh, M.D.

NR70 The Link Between Autistic Spectrum Disorders and Parental Occupation
H. Florence Kim, M.D., Sherry L. Sellers, M.D., Carmen Dickerson, L.M.S.W., E. O'Brian Smith, Ph.D., Geraldine S. Wilson, M.D.

NR71 Functional Impairment in Chronic Obstructive Pulmonary Disease Patients: The Impact of Anxiety and Depression
H. Florence Kim, M.D., Mark E. Kunik, M.D., Victor Molinari, Ph.D., Stephany L. Hillman, M.Ed., Suleman Lalani, M.D., Claudia A. Orengo, M.D., Sheila Goodnight-White, M.D.

NR72 Behavioral Problems in Adolescence
Siham Muntasser, M.D., Carrie Wiesenmeyer, B.A., Lee Matthews, Ph.D., James W. Lowe, M.D.

NR73 A Descriptive Study of Juvenile Firesetters Seen in a Juvenile Firesetting Program
David E. Walter, D.O., Vaughn Hardesty, Ph.D., Jennifer Dube, B.A.

NR74 A Methodological Study of Screening Childhood Psychopathology
Eun Young Oh, M.D., Soo Kwon Kim, M.D., Jin Hee Park, B.S., Mi Kyoung Park, R.N.

NR75 Comparison of Drawings by Tibetan and American Children for Indicators of Depression, Anxiety and Stress
Emily M. Pressley, D.O., John W. Getz, M.A., Ajanta Goswami, M.D.

NR76 Neurological Soft Signs in Learning Disorder
Man-Kil Seo, M.D., Yoo Sook Jung, M.D., Sungdo D. Hong, M.D.

NR77 Neurodevelopmental Antecedents of Early-Onset Bipolar Affective Disorder
Engilbert Sigurdsson, M.D., Eric Fombonne, M.D., Kapil Sayal, M.D., Stuart Checkley, M.D.

NR78 Consultation-Liaison Psychiatrists' Use of Antidepressants in the Physically Ill
Graeme C. Smith, M.D., David M. Clarke, M.B.B.S., Dennis Handrinos, M.B.B.S., Dean P. McKenzie, M.A.

NR79 Axis I and Personality Profiles of Oocyte Donors
Gary S. Bruss, Ph.D., Abraham Munabi, M.D., Michael Sobel, D.O., Reed D. Goldstein, Ph.D., Howard S. Sudak, M.D., Alan M. Gruenberg, M.D., Jacques P. Barber, Ph.D., Katie Nunno

NR80 Depression and Medical Illness in Young Women
Anjali M. Gupta, M.D., Lisa B. Dixon, M.D., Alicia Lucksted, Ph.D.

NR81 In-Flight Psychiatric Emergencies
Ken Matsumoto, M.D., Junji Takeshita, M.D., Deborah Goebert, M.S.

NR82 Consultation-Liaison Psychiatry: Introduction to Psychiatry Care
Janet Miller, B.A., Paul A. Kettl, M.D.

NR83 Clinical Evaluation of Nefazodone in Sexual Desire Disorders
Juan C. Romi, M.D., Guillermo J. Tortora, M.D.

NR84 Menopause: Evaluation of the Mood Symptoms in Women with Climateric Syndrome Attending an Outpatient Clinic
Jose C. Appolinario, M.D., Eustachio Nunes, Ph.D., Luis Cezar Povoa, Ph.D., Ricardo Meirelles, M.D., Walmir Coutinho, M.D.

NR85 The Cost of Premenstrual Dysphoric Disorder: A Review of the Literature
Adele Zinberg, M.D., Stephanie Klein-Stern, M.D.

NR86 The Effect of Divalproex Sodium on Viral Load: A Retrospective Review of HIV-Positive Patients with Manic Syndromes
Julie D. Maggi, M.D., Mark H. Halman, M.D.

NR87 Therapeutic Delirium
Chitra Malur, M.D., Max Fink, M.D., Andrew J. Francis, Jr., M.D.

NR88 Natural Killer Cell Activity in Alzheimer's Disease: Relation to Cognitive Impairment
Paolo Prolo, M.D., Rosa G. Masera, M.D., Antonio H. Staurenghi, M.D., Alberto Lazzero, M.D., Giulietta Griot, M.D., M. Luisa Sartori, M.S., Luigi Ravizza, M.D.

NR89 Peripheral Benzodiazepine Receptor, Ovarian Steroids and PMS
Robert C. Daly, M.B., Peter J. Schmidt, M.D., Candace L. Davis, B.S., Merry A. Danaceau, R.N., David R. Rubinow, M.D.

NR90 Predictors of Appointment Compliance in an Outpatient Community Mental Health Clinic
Athanasios A. Mihas, M.D., Paul E. Ruskin, M.D.

NR91 Video-Conferencing and Hispanic Mental Health Care
Sayonara J. Baez, M.D., Beverly N. Jones, M.D.

NR92 Seasonality and SAD in Chinese College Students: A Replication Study
Ling Han, M.D., Keqin Wang, M.D., Yiren Cheng, M.D., Zhaoyun Du, M.D., Norman E. Rosenthal, M.D., Francois Drimeau, M.D.

NR93 Age, Gender and Comorbidity in a Large Clinic Sample
Sanjay M. Vaswani, M.D., Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Ekkehard Othmer, M.D., Barry I. Liskow, M.D., William F. Gabrielli, Jr., M.D., Marsha R. Read, Ph.D.

NR94 Evaluation of Late-Onset Bipolar Illness During Menopause
Takako V. Ishimaru-Tseng, M.D.

NR95 Northern Latitude and Prevalence of the SAD: A Meta-Analysis
John M. Haggarty, M.D., Zachias Cernovsky, Ph.D., Patricia Kermeen, M.Sc.

NR96 A Report on the Evidence-Based Medicine Concept Number Needed to Treat
Kimberly Johnson, M.D., Christopher M. de Groot, M.D.

NR97 The Serial Criminal: Psychiatric and Forensic Aspects
Victor Poggi, M.D., Antonio Bruno, M.D., Juan C. Romi, M.D., Liliana Florio, Ph.D., Guillermo J. Tortora, M.D.

NR98 Munchausen Syndrome
Robert C. Rodriguez, M.D., Claudia B. Norry, Ph.D., Enrique Kuper, M.D., Guillermo J. Tortora, M.D.

NR99 Bipolar and Panic Disorder in the NIMH Genetic Study
Jennifer R. Cooper, J. Raymond DePaulo, Jr., M.D., Elliott S. Gershon, M.D., John I. Nurnberger, Jr., M.D., Theodore A. Reich, M.D., Dean F. MacKinnon, M.D.

NR100 Dopamine Transporter Gene Polymorphisms in ADHD: A Replication Study in Instanbul, Turkey
M. Yanki Yazgan, M.D., Eda Tahir, M.S., Beyazit Cirakoglu, Ph.D., Fatih Ozbay, Phillip Asherson, M.D.

NR101 Encountering Suicide: The Experience of Canadian Psychiatry Residents
Patricia D. Krawetz, M.D., Mark S. Etkin, M.D.

NR102 A Comparison of Depressive Symptoms in Physicians by Gender
Sudha R. Kumar, M.D., Sara E. Van Scoy, M.D.

NEW RESEARCH

Monday, May 17, 1999, 1:00 p.m.–2:30 p.m.

New Research 2 – Oral/Slide Session – Rooms 23/24, Lower Level, Convention Center

YOUNG INVESTIGATORS' ORAL/SLIDE SESSION

Chp.: Richard Balon, M.D.

NR103	Ten-Year Outcome of Pure Dually-Diagnosed Alcoholics Nathan D. Shiflett, D.O., Barbara J. Powell, Ph.D., Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Peggy J. Cantrell, Ph.D., Jennifer F. Landon, Ph.D., Jan L. Campbell, M.D.	1:00 p.m.
NR104	Depression Following Myocardial Infarction: A Prospective Assessment of Myocardial Infarction and Depression Incidence Jacqueline J. Strik, M.D., Richel Lousberg, Ph.D., Jim Van Os, Ph.D., Petra M. Kuijpers, M.D., Hein J. Wellens, Ph.D., Herman M. Van Praag, M.D., Adriaan Honig, M.D.	1:15 p.m.
NR105	An Open Trial of Repetitive Transcranial Magnetic Stimulation in Treatment-Resistant Depression Yvonne M. Greene, M.D., William M. McDonald, M.D., Charles M. Epstein, M.D., Liqiong He, M.D., Autumn L. Clark, B.S., Fred Marstellar, Ph.D.	1:30 p.m.
NR106	Calcium Absorption in Depressed Patients Paulo J. Negro, Jr., M.D., Steven A. Abrams, M.D., Sara L. Avery, R.N., Nancy Vieira, M.S., Denise Sciullo, M.D., Kamal E. Habib, M.D., Paula P. Negro, M.D., Michael Collins, M.D., James C. Reynolds, M.D., George Chrousos, M.D., Philip W. Gold, M.D.	1:45 p.m.
NR107	Seasonality and Climate Variables in the First-Manic Episodes of Bipolar Disorder Patients in Korea Heon-Jeong Lee, M.D., Leen Kim, M.D., Sook-Haeng Joe, M.D., Kwang-Yoon Suh, M.D.	2:00 p.m.
NR108	Temperamental Characteristics of Children and Adolescents with Bipolar Parents Kiki D. Chang, M.D., Hans Steiner, M.D., Terence A. Ketter, M.D.	2:15 p.m.

NEW RESEARCH

Monday, May 17, 1999, 1:00 p.m.–2:30 p.m.

New Research 3 – Oral/Slide Session – Rooms 25/26, Lower Level, Convention Center

YOUNG INVESTIGATORS' ORAL/SLIDE SESSION

Chp.: James W. Thompson, M.D.

NR109 Psychiatric Training for Primary Care Providers: Comparisons Between Internal Medicine and Family Practice — 1:00 p.m.
Ana C. Posada, M.D., Maria D.D. Llorente, M.D., Raymond L. Ownby, M.D.

NR110 Prolactin Levels in Youths with Childhood-Onset Schizophrenia After Treatment with Haloperidol, Clozapine and Olanzapine — 1:15 p.m.
Marianne Wudarsky, M.D., Lori Spechler, B.A., Robert J. Nicolson, M.D., Susan Hamburger, M.S., Cara Alfaro, Pharm.D., J.L. Rapoport, M.D.

NR111 Lack of Association Between Violence in Schizophrenia and Polymorphisms in Genes That Regulate Serotonin Transmission — 1:30 p.m.
Takuya Saito, M.D., Herbert Lachman, M.D., Pavel Mohr, M.D., Karen Nolan, Ph.D., Jan Volavka, M.D.

NR112 Expressed Emotion and Relapse in Turkish Patients with Schizophrenia — 1:45 p.m.
Aykut Ozden, M.D., Saynur Canat, M.D.

NR113 Premorbid Function and Its Meaning in First-Episode Psychosis — 2:00 p.m.
Rogelio Apiquian, M.D., Rosa Elena Ulloa, M.D., Humberto Nicolini, Ph.D., Ana Fresan, M.D., Francisco Paez, M.D., Elena Medina-Mora, Ph.D.

NR114 Reduced Orbital and Superior Prefrontal Cortex Volumes in Schizophrenia — 2:15 p.m.
Dev R. Puri, B.A., Valerie Cardenas, Ph.D., Camilla Johnson, B.S., Courtnay Bloomer, B.A., Raymond F. Deicken, M.D., Yael Eliaz, B.A.

NEW RESEARCH

Monday, May 17, 1999, 3:00 p.m.–5:00 p.m.

New Research 4 – Poster Session – Hall D, Lower Level, Convention Center

YOUNG INVESTIGATORS' POSTER SESSION

Moderator: Richard Balon, M.D.

NR115 Substance Use Among Depressed Patients in Managed Primary Care
Carol A. Roeloffs, M.D., Kenneth B. Wells, M.D.

NR116 Increasing Compliance in Newly Depressed Patients
Donald W. Robinson, Jr., M.S.P.H., George Fulop, M.D., Laurence Hirsch, M.D., Michelle Hensleigh, M.P.A., Debra Maldonato, M.S.

NR117 Programs for Assertive Community Treatment Service Patterns: Demographics and Outcomes
Scot W. McNary, M.A., Lisa B. Dixon, M.D., Anthony F. Lehman, M.D.

NR118 Maternal Depression and Pediatric Preventive Health Services Utilization
John D. McLennan, M.D., Milton Kotelchuck, Ph.D., Kristin B. Young, M.S.P.H.

NR119 Risk Factors for Transfer from a Geropsychiatric to a Medical Unit
Can Bulucu, M.D., Neil J. Kremen, M.D., Elisse Kramer, Ph.D., Peter Manu, M.D.

NR120 Use of Atypical Antipsychotics in a Veterans Affairs Hospital
Thomas L. Schwartz, M.D., William J. Hardoby, M.D., Mercy Saba, M.D., Sarah L. Berry, B.S., Prakash S. Masand, M.D.

NR121 Divalproex Sodium Versus Lithium Carbonate: Is There a Difference for In-Hospital Treatment of Bipolar Disorders?
Thomas L. Schwartz, M.D., Declan P. Boylan, M.D., K.N. Roy Chengappa, M.D., Sanjay Gupta, M.D., Prakash S. Masand, M.D.

NR122 Good Clinical Practice in Two Studies with Paroxetine in Argentina
Guillermo J. Tortora, M.D., Pablo A. Liuboschitz, Ph.D., Roxana Aluarez, Ph.D., Liliana Florio, Ph.D., Dario Bowetti, Ph.D., Pablo Mateos, M.D.

NR123 Cardiac Side Effects of Two SSRIs in Middle-Aged and Elderly Depressed Patients
Jacqueline J. Strik, M.D., Adriaan Honig, M.D., Richel Lousberg, Ph.D., Emile C. Cheriex, Ph.D., Herman M. Van Praag, M.D.

NR124 Substance Dependence and the Utilization of PRN Anxiolytic/Hypnotic Drugs in the Hospital Setting
David E. Lyon, B.S., Dale A. D'Mello, M.D., Christopher C. Colenda, M.D., Colin Fernandes, M.D.

NR125 Ethnic Disparity in the Management of Psychiatric Symptoms in the National Ambulatory Medical Care Survey
Carlos Blanco-Jerez, M.D., Mark Olfson, M.D.

NR126 A Long-Term, Double-Blind, Placebo-Controlled Study of Fluvoxamine for Pathological Gambling
Carlos Blanco-Jerez, M.D., Eva Petkova, Ph.D., Angela Ibanez, M.D., Jeronimo Saiz-Ruiz, M.D.

NR127 Prevalence and Predictors of Psychotropic Drug Use in Pregnancy and Neonatal Outcome
Betsy A. Ciarimboli, M.D., Adele C. Viguera, M.D., Lee S. Cohen, M.D., Joan Stoler, M.D.

NR128 How Often Do Psychiatrists Raise the Dose When SSRIs Do Not Work?
Steffany J. Fredman, B.A., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D., Candace N. White, M.Ed., David Miscoulon, M.D., John B. Herman, M.D., Andrew A. Nierenberg, M.D.

NR129 Ginkgo Biloba LI 1370 Extract: Effects on Sleep Regulation and Cognitive- Psychomotor Functions in Patients with Major Depression
Edith Holsboer-Trachsler, M.D, Martin Hatzinger, M.D., Ulrich Hemmeter, M.D., Barbara Annen, Ph.D.

NR130 Clinical Efficacy and Tolerability of the Hypericum Extract in Depressive Disorders
Edith Holsboer-Trachsler, M.D, Christian Vanoni, M.D.

NR131 Pramipexole Augmentation of Antidepressant Therapy
Steven F. Kendell, M.D., Mark D. Herbst, M.D.

NR132 Clonidine Plus Haloperidol Treatment of Patients with Chronic Schizophrenia: A Double-Blind, Placebo-Controlled Study
Hyeong-Seob Kim, M.D., So-Hee Kim, M.D., Hye-Soon Lee, M.D., Sung-Hak Ji, M.D.

NR133 Increase in Gene Expression of Superoxide Dismutase by Some Antidepressants
Xin-Min Li, M.D., Jennifer Chlan-Fourney, B.A., Augusto V. Juorio, Ph.D., Vern L. Bennett, M.D., Satish Shrikhande, M.D., Rudy L. Bowen, M.D.

NR134 Severe EPS in Women Receiving Depot Neuroleptics: Case Series and Review of the Literature
Chitra Malur, M.D., Laura J. Fochtmann, M.D.

NR135 Emergence of Catatonia During ECT
Chitra Malur, M.D., Andrew J. Francis, Jr., M.D.

NR136 Average Dose and Weight: Olanzapine Versus Risperidone
James M. Martinez, M.D., James M. Russell, M.D., Joan A. Mackell, Ph.D.

NR137 Strategies for Management of Depression Refractory to SSRI Treatment: A Survey of Clinicians
David Mischoulon, M.D., Andrew A. Nierenberg, M.D., Leena Kizilbash, M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.

NR138 Citalopram in Depression: Response and Serotonin
Ricardo Nunez, M.D., Paul J. Goodnick, M.D., Wendy E. Doran, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D.

NR139 Olanzapine Pharmacoeconomic Study
Brenda S.K. Quon, M.D., Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

NR140 Quetiapine Pharmacoeconomic Study
William Resnick, M.D., Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

NR141 CYP2D6 Genotyping in Patients with Schizophrenia
Oscar V. Rosas, M.D., Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

NR142 The Perceived Parental Fostering Attitudes by Patients with Schizophrenia in Two Korean Hospitals
Jung-Hyun Nam, M.D., Jong-Il Lee, MD, Seok-Hyeon Kim, MD, Yong-Chon Park, M.D.

NR143 Dispragmatism: A Noticeable Symptom in Schizophrenia
Antonio Bruno, M.D., Guillermo J. Tortora, M.D., Liliana Florio, Ph.D., Ignacio Brusco, M.D.

NR144 Delusional Disorder: Sensory Acuity and Reasoning
Charles R. Conway, M.D., Anna M. Bollini, B.A., Brevick G. Graham, B.A., Richard S.E. Keefe, Ph.D., Susan S. Schiffman, Ph.D., Joseph P. McEvoy, M.D.

NR145 Prescription Pattern of Antipsychotic Use in an Outpatient Setting
Irish Crisanto, M.D., Lyonel Benoit-Rock, M.D., Sherley Millet, M.D., Sarah Ballou, B.A., Robert G. Stern, M.D.

NR146 Racial Differences in Rates of Depression in Schizophrenia
Janine C. Delahanty, M.A., Leticia T. Postrado, Ph.D., Theodora G. Balis, M.D., Lisa D. Green-Paden, M.D., Alicia Lucksted, Ph.D., Lisa B. Dixon, M.D.

NR147 Corpus Callosum Shape Differences in First-Episode Psychosis and Affective Disorder
Melissa Frumin, M.D., Robert W. McCarley, M.D., Martha E. Shenton, Ph.D., Yoshio Hirayasu, M.D., Dean F. Salisbury, Ph.D.

NR148 The Effects of Typical and Atypical Antipsychotic Medications on Electrocardiographic Parameters in Schizophrenia
David M. Harwitz, M.D., Sarah Ballou, B.A., Julie Kim, B.A., Robert G. Stern, M.D.

NR149 Substance Abuse and Treatment Response in First-Episode Schizophrenia
Rosalind G. Hoffman, M.D., Nina R. Schooler, Ph.D., Jose M.A. Alvir, Ph.D., Delbert G. Robinson, M.D., Julia A. Becker, M.D., Alan J. Mendelowitz, M.D., Handan Gunduz, M.D.

NR150 Substance Abuse and Schizophrenia Treatment
Rebecca J. Hopkins, Paul A. Kettl, M.D.

NR151 The Effects of Risperidone on Negative Symptoms and Neurocognitive Functions in Patients with Schizophrenia
Dong-Woo Kang, M.D., Eyong Kim, M.D., Kyung-Sue Hong, M.D., Man-Kil Seo, M.D., Sung-En Sohn, M.D., Jong-Min Woo, M.D., Doh-Kwan Kim, M.D.

NR152 Korean Version of the Occupational Stress Inventory: A Preliminary Study of Standardization
Dong-Woo Kang, M.D., Dong Su Lee, M.D., Ji-Hae Kim, Ph.D., Wou Sang Han, M.D., Jong-Min Woo, M.D., Young Gun Ko, M.A.

NR153 Soft Neurologic Signs in Schizophrenia
Jaegyeong Kim, M.D., Soh-Yeon Ahn, M.A., Kyung-Sue Hong, M.D., Ji-Hae Kim, Ph.D., Sang-Ick Lee, M.D., Eyong Kim, M.D.

NR154 Satisfaction and Outcomes with a New Multidisciplinary Clinic: Models for Stable Outpatients with Severe Mental Illness
Ravi S. Kirbat, M.D., Mona Goldman, Ph.D., Lorelei Simpson, B.S., Marcia T. Valenstein, M.D., Karen K. Milner, M.D., Sheila M. Marcus, M.D.

NR155 Automated Analyses Reveal No Delta Sleep Deficits in Schizophrenia
Ravi S. Kirbat, M.D., Alan S. Eiser, Ph.D., James E. Shipley, M.D., Alan B. Douglass, M.D., Rajiv Tandon, M.D.

NR156 The Effects of Antipsychotic Medications on the Lipid Profile in Schizophrenia
Sherley Millet, M.D., Lyonel Benoit-Rock, M.D., Irish Crisanto, M.D., Sarah Ballou, B.A., Denise Frank, B.A., Julie Kim, B.A., Robert G. Stern, M.D.

NR157 MRI Study of Cavum Septi Pellucidi in Schizophrenia
Mary P. Pegues, M.S.W., Diane Amend, Ph.D., Raymond F. Deicken, M.D.

NR158 Evaluation of the Factors Interfering with Drug Treatment Compliance Among Brazilian Patients with Schizophrenia
Moacyr A. Rosa, M.D., Marco A. Marcolin, M.D.

NR159 Polypharmacy in Patients with Schizophrenia
Aida T. Ruiz, M.D., Jaime Santander, M.D., Eduardo Miranda, M.D., Rafael Blanco, M.D.

NR160 Early Age of Onset of Schizophrenia in a Chilean Sample of Patients
Aida T. Ruiz, M.D., Rafael Blanco, M.D., Jaime Santander, M.D., Eduardo Miranda, M.D.

NR161 Premorbid Academic Dysfunction and Negative Symptoms in Schizophrenia
Elaine A. Sandler, M.D., Claire L. Tuthill, M.D., Lorelei Simpson, B.S., Denise Gribbon, M.D., Mona Goldman, Ph.D., Rajiv Tandon, M.D.

NR162 Sulpiride for Schizophrenia: A Systematic Review
Bernardo G.O. Soares, M.D., Mark Fenton, M.D., Mauricio S. Lima, Ph.D., Pierre Chue, M.D., Clive E. Adams, M.Sc.

NR163 Parkinsonism in Geriatric Inpatients with Schizophrenia
Carolina Stamu, M.D., William M. Byne, M.D., Leonard White, Ph.D., Michael Parella, Ph.D., Philip D. Harvey, Ph.D., Kenneth L. Davis, M.D.

NR164 Visuospatial Information Processing in Schizophrenia: A Pilot Study
Cenk Tek, M.D., James M. Gold, Ph.D., Caleb A. Queern, B.A., Robert W. Buchanan, M.D.

NR165 Progression of Premorbid Dysfunction in Schizophrenia
Claire L. Tuthill, M.D., Elaine A. Sandler, M.D., Denise Gribbon, M.D., Lorelei Simpson, B.S., Mona Goldman, Ph.D., Rajiv Tandon, M.D.

NR166 Prevalence of Bleuler's Schizophrenia in a Psychiatric Hospital 1985-1986
Dr. Natividad Vicente, Dr. Enriqueta Ochoa, Berta Rios, M.D., Helena Diaz, Dr.

NR167 Peculiarities of Clinical Picture of Paranoid Schizophrenia in a Case of Chronic Stressful Experience
Arman K. Danielyan, M.D., Konstantin G. Danieuyan, Ph.D., Susanna H. Hairapetyan, R.N.

NR168 Impact of Aftercare in Addiction Treatment
Gagan S. Dhaliwal, M.D., Baljit S. Gill, M.D., Don Doherty, M.D., Lisa Fore Arcand, Ed.D.

NR169 Emergency Treatment of Depression: Use of ECT and Reboxetine
Parrukh Hussain, M.D., Kachappilly Gmacious, M.D.

NR170 Prevalence of Depression and Its Relationship with Mortality/Morbidity in Patients with Heart Failure
K. Ranga R. Krishnan, M.D., Wei Jiang, M.D., Jude R. Alexander, M.D., Eric J. Christopher, M.D., Maggie Kuchibhalla, Ph.D., Christopher O'Connor, M.D.

NR171 Quality of Evidence in the APA Practice Guideline for Alzheimer's Disease
Jagoda Pasic, M.D., Soo Borson, M.D., Efthimis Efthimiadis, Ph.D.

NR172 Blunted Hormonal Response to M-Chlorophenylipiperazine Challenge in Negative Type Patients with Schizophrenia
Joan Salva-Coll, M.D., Miquel Bernardo, M.D., Joan Gaya, Ph.D., Roser Casamitjana, Ph.D., Immaculada Baeza, M.D., Silvia Catarineu, M.Sc., Manel Salamero, Ph.D.

NR173 Relationship of Menstrual-Cycle-Related Changes in Cortical Excitability and Gonadal Steroids
Mark J. Smith, M.D., John C. Keel, B.A., Benjamin D. Greenberg, M.D., Linda F. Adams, B.A., Peter J. Schmidt, M.D., David R. Rubinow, M.D., Eric M. Wassermann, M.D.

NR174 Peripheral Neuroendocrine Aberrations in Postpartum-Onset Major Depression
James R. Strader, Jr., B.S., D. Jeffrey Newport, M.D., Alexis M. Llewellyn, B.A., Zachary N. Stowe, M.D.

NR175 Sensitivity to Light: A Questionnaire
Fulvio Pieraccini, M.D., Sonia Iapichino, M.D., Claudia Pacchierotti, M.D., Letizia Bossini, M.D., Paolo Castrogiovanni, M.D.

NR176 Dopaminergic System and Panic Disorder
Fulvio Pieraccini, M.D., Sonia Iapichino, M.D., Claudia Pacchierotti, M.D., Letizia Bossini, M.D., Paolo Castrogiovanni, M.D.

NR177 The Prevalence and Neuropsychiatric Correlates of Post-Traumatic Stress Symptoms Following Mild Traumatic Brain Injury
Susan K. Hershkop, M.D., Alison Jardine, O.T., D. Ouchterlony, M.D., Anthony Feinstein, M.D.

NR178 Reduced Cortical Excitability After Capsulotomy for OCD: A Transcranial Magnetic Stimulation Case Study
John C. Keel, B.A., B. Greenberg, M.D., E. Wasserman, M.D., U. Ziemann, Ph.D., L. Justement, R.N., D. Murphy, M.D., S. Rasmussen, M.D.

NR179 The Influence of APOE Genotype on Cognitive Recovery After Traumatic Brain Injury
Marina F. Waisman, M.D., Patricia I. Ordorica, M.D., Rodney Vanderploeg, Ph.D., Fiona Crawford, Laila Abdullah, B.S., Laura S. Selke, B.S., Michael J. Mullan, M.D.

NR180 Fluoxetine in Early Post Stroke Depression: A Double-Blind Randomized Study
Laurent Wiart, M.D., H. Petit, M.D., Dr. Debelleix, M.D.

NR181 Scalp to Prefrontal Cortex Distance Increases with Age and Might Influence the Antidepressant Effect of Left Prefrontal Repetitive Transcranial Madnetic Stimulation
F. Andrew Kozel, M.D., Ziad H. Nahas, M.D., Cart deBrux, B.S., Monica Molloy, M.S.N., Jeffrey P. Lorberbaum, M.D., Samuel C. Risch, M.D., Mark S. George, M.D.

NR182 Physiological Changes in Galvanic Skin Response and Electromyography in the Treatment Course of Biofeedback
Man-Kil Seo, M.D., Wou Sang Han, M.D., Bum Hee Yu, M.D., Eyong Kim, M.D.

NR183 Mortality in Anorexia Nervosa: A 60-Year Follow-Up
Sergio R. Korndorfer, M.D., Lois E. Krahn, M.D., Alexander R. Lucas, M.D., Vera J. Suman, Ph.D., L. Joseph Melton III, M.D.

NR184 Body Fat Distribution Before and After Weight Gain in Anorexia Nervosa
Laurel Mayer, M.D., B. Timothy Walsh, M.D., Jack Wang, M.D., Richard N. Pierson, M.D.

NR185 Categorical Versus Dimensional Personality Pathology
Wayne A. Ayers, M.A., Nick Haslam, Ph.D., David P. Bernstein, Ph.D., Warren Tryon, Ph.D., Leonard Handelsman, M.D.

NR186 The Comorbidity and Effects of Personality Disorders on Depressive Mood Disorders in a Turkish Population
Emine N. Iscan, M.D., Sibel Orsel, M.D., Asena Akdemir, M.D., Hakan Turkcapar, M.D., Ayhan Sirin, M.D., Emine Kilic, M.D., Haluk Ozbay, M.D.

NR187 Prevalence of Sleep Disorders in Elderly People Living in a Rural Community
Carmen Fernandez, M.D., Pilar A. Saiz, M.D., Maria P. Gonzalez, Ph.D., M. Teresa Bascaran, M.D., Eva Garcia, Ph.D., Julio B. Bobes, M.D.

NR188 A Prospective Assessment of Mood Symptoms in Chronic Insomniacs
Tung-Ping Tom Su, M.D.

NR189 The Role of Experiential Groups in Residency Training
Laura R. Gaffney, M.D., Lisa B. Dixon, M.D.

NR190 The Safety of a Combination of Fluoxetine and L-Tryptophan in Terms of Serotonin Syndrome
Ripu Jindal, M.D., Robert D. Levitan, M.D., Colin Shapiro, M.D., Shen Jian-Hua, M.D.

NR191 Baseline Absolute Blood Flow Measured with Oxygen-15 PET Predicts Differential Antidepressants Response to 1HZ Versus 20 HZ rTMS
Andrew M. Speer, M.D., Timothy A. Kimbrell, M.D., Eric M. Wassermann, M.D., Mark W. Willis, M.Eng., Robert M. Post, M.D.

NR192 Cerebellar Glucose Metabolic Rate in Autism Spectrum Disorder
Steven G. Spector, M.D., M. Mehmet Haznedar, M.D., Tse Chung Wei, Ph.D., Monte S. Buchsbaum, M.D., Chris Smith, M.A., Bonnie A. Aronowitz, Ph.D., Eric Hollander, M.D.

NR193 Prefrontal Volumes in First-Episode Schizophrenia
Shin Tanaka, M.D., Yoshio Hirayasu, M.D., Martha E. Shenton, Ph.D., Massimo A. De Santis, B.S., Dean F. Salisbury, Ph.D., Robert W. McCarley, M.D.

NR194 Suicidal Ideation Affects Choice of Resuscitation Status
Ilyse Lifton, B.A., Paul A. Kettl, M.D.

NR195 Quetiapine in Psychotic Depression
Hosein Tahami, M.D., Paul J. Goodnick, M.D., Wendy E. Doran, M.D., Mark Hernandez, M.D., Blanche Freund, Ph.D.

NR196 Religious and Spiritual Expectations of Psychiatric Inpatients
Hetal K. Brahmbhatt, M.D., Brent R. Coyle, M.D., Barney E. Miller, Ph.D.

NR197 Patients with Schizophrenia Literary Group in Internet
Lidia Lafon, Ph.D., Luis Lozano, M.D., Liliana Florio, Ph.D., Guillermo J. Tortora, M.D.

NR198 Two-Day Treatment: Communities Building Bridges
Anna Pieczarowska, Jeff Aston, John Burns, Charles D. Hanson, M.D., Milica A. Markovic, M.D.

NR199 Relationships Between Interleukins, Neurotransmitters and Psychopathology in Drug-Free Males with Schizophrenia
Yong-Ku Kim, M.D., Leen Kim, M.D., Min-Soo Lee, M.D.

NR200 Survey of Computer and Internet Usage by Residents
Ambrose Cheng, M.D., Rima Styra, M.D.

NR201 A Multipurpose, IntraNet- Compatible Data Management System for Clinical Research
Julie I. Lu, B.A., Gabriela Cora-Locatelli, M.D., Juliet Martin, B.S., Yung-Mei Leong, M.A., Dennis L. Murphy, M.D., Benjamin D. Greenberg, M.D.

NR202 A Forensic Psychological Approach on Family Violence
Mariana C. Bueres, Ph.D., Claudia E. Fortich, Ph.D., Claudia B. Norry, Ph.D., Guillermo J. Tortora, M.D.

NR203 Aggressive Behavior in Psychiatric Inpatients in Taiwan
Chau-Shoun Lee, M.D., Jung-Chen Chang, M.N.

NR204 Patient Violence Against Hospital Staff: The National Center for Mental Health Perspective
Julio A.C. Navallo, M.D., Carmelita C. Corpuz, M.D.

NEW RESEARCH

Tuesday, May 18, 1999, 9:00 a.m.-10:30 a.m.

New Research 5 – Oral/Slide Session – Rooms 23/24, Lower Level, Convention Center

SCHIZOPHRENIA

Chp.: Richard Balon, M.D.

NR205	Cost-Effectiveness of Risperidone Versus Olanzapine in Schizophrenia: A Computer Database Evaluation Matthew J. Byerly, M.D., Mary T. Weber, Ph.D., Deean Brooks, B.S.	9:00 a.m.
NR206	Pulvinar and Mediodorsal Thalamic Volume in Schizophrenia and Schizotypal Personality Disorder Monte S. Buchsbaum, M.D., William M. Byne, M.D., Eileen Kemether, M.D., Akbar Shinwari, M.D., Erin A. Hazlett, M.B., Jacqueline Spiegel-Cohen, M.S., Larry J. Siever, M.D.	9:15 a.m.
NR207	Progressive MRI Volume Change in Schizophrenia Yoshio Hirayasu, M.D., Martha E. Shenton, Ph.D., Dean F. Salisbury, Ph.D., Melissa Frumin, M.D., Iris A. Fischer, B.A., Robert W. McCarley, M.D.	9:30 a.m.
NR208	Synaptic Protein mRNAs Expression in Schizophrenia Boris P. Sokolov, Ph.D., Andrew Tcherepanov, M.S., Vahram Haroutunian, Ph.D., Kenneth L. Davis, M.D.	9:45 a.m.
NR209	Shape Differences in the Hippocampus in Schizophrenia Martha E. Shenton, Ph.D., Guido Gerig, Ph.D., Robert W. McCarley, M.D., Gabor Szekeley, Ph.D., Ron Kikinis, M.D.	10:00 a.m.
NR210	Cigarette Smoking and Negative Symptoms in Schizophrenia Ashwin A. Patkar, M.D., Kenneth M. Certa, M.D., Allan Lundy, Ph.D., Stephen Weinstein, Ph.D., Michael J. Vergare, M.D., Ronald D. Serota, M.D.	10:15 a.m.

NEW RESEARCH

Tuesday, May 18, 1999, 9:00 a.m.-10:30 a.m.

New Research 6 – Oral/Slide Session – Rooms 25/26, Lower Level, Convention Center

PERSONALITY DISORDERS AND STRESS

Chp.: Robert W. Guynn, M.D.

NR211	Caudate Volume in Schizotypal Personality Disorder: An MRI Study in Neuroleptic-Naive Subjects James J. Levitt, M.D., Martha E. Shenton, Ph.D., Chandlee C. Dickey, M.D., Ron Kikinis, M.D., Ferenca Jolesz, M.D., Robert W. McCarley, M.D.	9:00 a.m.
NR212	Subcortical Dopaminergic Activity in Schizotypal Personality Disorder Harold W. Koenigsberg, M.D., Vivian Mitropoulou, M.A., Anissa Abi-Dargham, M.D., Melissa Nunn, B.S., Marc Laruelle, M.D., Larry J. Siever, M.D.	9:15 a.m.
NR213	Transmission Disequilibrium Test in Two Polymorphisms in the Serotonin Transporter Gene in Familial OCD Margaret A. Richter, M.D., Fariba Sam, B.Sc., Karyn E. Hood, M.Ed., Andrew Paterson, M.B., James L. Kennedy, M.D.	9:30 a.m.
NR214	Computer-Assisted Behavior Therapy for OCD John H. Greist, M.D., Isaac M. Marks, M.D., Lee Baer, Ph.D., J. Richard Parkin, M.B., Peter A. Manzo, M.S.W., Julia M. Mantle, R.N., Kenneth A. Kobak, Ph.D.	9:45 a.m.
NR215	The Effect of Cholecystokinin-Tetrapeptide in Social Phobia and OCD Martin A. Katzman, M.D., Jacques Bradwejn, M.D., Diana Koszycki, Ph.D., Franco J. Vaccarino, Ph.D.	10:00 a.m.
NR216	Sleep Disturbances Associated with Adult ADHD William W. Dodson, M.D., Yuxin Zhang, Ph.D.	10:15 a.m.

NEW RESEARCH

Tuesday, May 18, 1999, 12 noon-2:00 p.m.

New Research 7 – Poster Session – Hall D, Lower Level, Convention Center

SCHIZOPHRENIA, NEUROBIOLOGY, NEUROPSYCHIATRY AND BIOLOGICAL PSYCHIATRY

Moderator: Barbara Stanley, M.D.

NR217 M300 in Normal Controls and Schizophrenia Patients
Jose M. Canive, M.D., Chris J. Edgar, M.S., Gregory Miller, Ph.D.

NR218 Neurodevelopmental Disorders and Atypical M100 Asymmetries
Jose M. Canive, M.D., Chris J. Edgar, M.S., Steven W. Gangestad, Ph.D., Ronald A. Yeo, Ph.D., Dimitri Calvert, B.A., James T. Davis, Ph.D.

NR219 Decline in the Incidence of Schizophrenia
Jaana M. Suvisaari, M.D., Jouko K. Lonnqvist, M.D., Jari K. Haukka, Ph.D., Antti Tanskanen, M.D.

NR220 Gender Differences in Premorbid Cognitive Functioning and Outcome in Schizophrenia
Mark Weiser, M.D., Abraham Reichenberg, M.A., Jonathan Rabinowitz, D.S.W., Zeev Kaplan, M.D., Mordehai Mark, M.D., Michael Davidson, M.D.

NR221 A Longitudinal Study of Cognitive Decline in Chronic Schizophrenia
Philip D. Harvey, Ph.D., Joseph I. Friedman, M.D., Michael Parrella, Ph.D., Jeremy M. Silverman, Ph.D., Kenneth L. Davis, M.D., Leonard White, Ph.D.

NR222 Efficacy of Quetiapine Fumarate in Partial Responders
Robin A. Emsley, M.D., Joher Raniwalla, M.D., Peter Bailey, B.Sc., A. Martin Jones, B.Sc.

NR223 Depressive and Anxiety Symptoms in Patients with Schizophrenia and Schizophreniform Disorder
Robin A. Emsley, M.D., Piet Oosthuizen, M.B., Andre Joubert, M.B., Mimi C. Roberts, M.B., Dan J. Stein, M.D.

NR224 Effect of M100907 and Haloperidol on Voluntary Cocaine Intake in Rats
Jeannette C. Miller, Ph.D., Arnold J. Friedhoff, M.D., Steve J. Offord, Ph.D.

NR225 Correlates of Long-Term Unemployment and Perceptions of Capacity to Work Among Persons Living with Severe and Persistent Mental Illness
Richard W. Goldberg, Ph.D., Anthony F. Lehman, M.D., Lisa B. Dixon, M.D.

NR226 Disorder Versus Schizophrenia Pre- and Post-Treatment
Alexander Bystritsky, M.D., Robert Paul Liberman, M.D., Sanjaya Saxena, M.D., Sun Hwang, M.S., Charles J. Wallace, Ph.D., Karron Maidment, R.N., Tanya Vapnik, Ph.D.

NR227 Enlarged CSF and Reduced Cortical Gray Matter in Schizotypal Personality Disorder
Chandlee C. Dickey, M.D., Martha E. Shenton, Ph.D., Yoshio Hirayasu, M.D., Margaret Niznikiewicz, Ph.D., Martina M. Voglmaier, Ph.D., Iris A. Fischer, B.A., Robert W. McCarley, M.D.

NR228 Low-Dopamine Trait in Families with Schizophrenia
Farooq Amin, M.D., Patricia A. Calkin, M.D., Jeremy M. Silverman, Ph.D., Christopher J. Smith, B.S., Dianna Densmore, M.S., Larry J. Siever, M.D.

NR229 Schizotypal Personality Disorder: Language and Gender
Martina M. Voglmaier, Ph.D., Larry J. Seidman, Ph.D., Margaret Niznikiewicz, Ph.D., Chandlee C. Dickey, M.D., Martha E. Shenton, Ph.D., Robert W. McCarley, M.D.

NR230 Prefrontal Dysfunction and Negative Symptoms in Schizophrenia Patients: A SPECT Study
Felipe Ortuno, M.D., Luis Fernandez, M.D., Javier Arbizu, M.D., Jorge Pla, M.D., Salvador Cervera-Enguix, M.D.

NR231 Risperidone Restores Fronto-Parietal Activation by Working Memory Task in Patients with Schizophrenia
Tonmoy Sharma, M.D., Garry D. Honey, Malini Varatheesan, Edward T. Bullmore, Steven C. Williams, William Soni

NR232 The Effects of Risperidone and Typical Antipsychotic Drug Treatments on Verbal Fluency and Executive Function in Schizophrenia
Tonmoy Sharma, M.D., Shaun T. O'Neill, Robin G. Morris, Darren M. Mockler, William Soni

NR233 The Effect of Risperidone Versus Phenothiazine Neuroleptics on Smooth Pursuit Eye Dysfunction in Schizophrenia
Janusz K. Rybakowski, M.D., Alina Borkowska, Ph.D., Aleksander Araszkiewicz, M.D., Alina Kucma, M.D.

NR234 Anticholinergic Differences Among Patients Receiving Standard Clinical Doses of Olanzapine or Clozapine
K.N. Roy Chengappa, M.D., Bruce G. Pollock, M.D., Haranath Parepally, M.D., Joseph A. Levine, M.D., Margaret A. Kirshner, B.A., Jaspreet S. Brar, M.D., Rebecca A. Zoretich, M.Ed.

NR235 Efficacy and Safety Study Comparing Olanzapine Versus Haloperidol in the Treatment of Chinese Patients with Schizophrenia in Taiwan and Hong Kong
Pierre V. Tran, M.D., Fan Zhang, Ph.D., Hai-Gwo Hwu, M.D., Felice Liehmak, Ph.D.

NR236 Clinical Experience with Olanzapine in Patients of African, Asian and Hispanic Descent
Pierre V. Tran, M.D., Gary D. Tollefson, M.D., Dana Creanga, Ph.D., Fan Zhang, Ph.D., Jeff Wang, Surya Vangala, M.S., Lynn Cousins

NR237 Smaller, Pathological Layer V Pyramidal Neurons in Prefrontal Cortex with Schizophrenia
James E. Black, M.D., Anna Y. Klintsova, Ph.D., Abhay Laddu, Aaron Grossman, Natalya A. Uranova, Ph.D., Ian Kodish, William T. Greenough, Ph.D.

NR238 Relative Risk Estimate of Eye Tracking Dysfunction in Siblings of Patients with Schizophrenia
Jonathan B. Strauss, B.S., Robert J. Nicolson, M.D., Daniel W. Hommer, M.D., Daniel R. Weinberger, M.D., Michael F. Egan, M.D.

NR239 High Social Phobia Scale Scores in Schizophrenia Do Not Correlate with Psychosis Symptom Severity Scores
Robert G. Stern, M.D., Denise Frank, B.A., Hasan Mera, Sarah Ballou, B.A., Elke Schnur, B.A.

NR240 Increased Prevalence of Diabetes Mellitus Among Schizophrenic and Bipolar Patients
Robert G. Stern, M.D., Muhammad Saleem, M.D.

NR241 Improvement in Markers of Health Status Six Weeks After Switching from Olanzapine to Ziprasidone
David G. Daniel, M.D., Jeffrey A. Lieberman, M.D., Robert J. Birnbaum, M.D.

NR242 Switching from Olanzapine to Ziprasidone: An Interim Analysis of a Six- Week Study
David G. Daniel, M.D., Robert G. Stern, M.D., Thomas A.M. Kramer, M.D., Peter Powchik, M.D., Switch Study Group

NR243 The Unique Human Receptor Binding Profile May Be Related to Lack of Weight Gain with Ziprasidone
Kenny J. Simansky, Ph.D., Stevin H. Zorn, Ph.D., Ann W. Schmidt, M.S., Lorraine A. Lebel, M.S.

NR244 Switching from Risperidone to Ziprasidone: An Interim Analysis of a Six- Week Study
George M. Simpson, M.D., Steven G. Potkin, M.D., Peter Powchik, M.D., Switch Study Group

NR245 Reliability and Validity of Neuropsychological Performance and Cognitve Symptoms in Geriatric Schizophrenia
Leonard White, Ph.D., Michael Parrella, Ph.D., Susan R. McGurk, Ph.D., Philip D. Harvey, Ph.D., Joseph I. Friedman, M.D., Kenneth L. Davis, M.D.

NR246 Movement Disorder, Memory, Psychiatric Symptoms, and Dehyrdroepiandrosterone in Schizophrenia
Debra S. Harris, M.D., Owen M. Wolkowitz, M.D., Victor I. Reus, M.D.

NR247 OCD in First-Episode Schizophrenia
Michael Poyurovsky, M.D., Michael Schneidman, M.D., Kamil Fuchs, M.D., Abraham Weizman, M.D.

NR248 MRI Volumetric Studies of Atypical Antipsychotics
Samuel C. Risch, M.D., Ziad H. Nahas, M.D., Mark B. Hamner, M.D., Monica Molloy, M.S.N., C. Lindsay Devane, Ph.D., Susan D. Owens, B.S., Mark S. George, M.D.

NR249 Mismatch Negativity in First-Episode and Chronic Schizophrenia
Dean F. Salisbury, Ph.D., Iris A. Fischer, B.A., Martha E. Shenton, Ph.D., Deirdre Farrell, B.A., Carlos A. Zarate, Jr., M.D., Robert W. McCarley, M.D.

NR250 Insight in Schizophrenia and Related Disorders
Zeelaf B. Munir, M.D., John Mathews, M.D., John G. Csernansky, M.D.

NR251 Differing Side Effect Burden with Newer Antipsychotics
Peter J. Weiden, M.D., Joan A. Mackell, Ph.D.

NR252 Switching from Conventional Antipsychotics to Ziprasidone: An Interim Analysis of a Six-Week Study
Peter J. Weiden, M.D., George M. Simpson, M.D., Thomas A.M. Kramer, M.D., Philip D. Harvey, Ph.D., Peter Powchik, M.D., Switch Study Group

NR253 APO-E4 Gene Frequency in Schizophrenia
Smita Kittur, M.D., Peter Hauser, M.D., Mitchel A. Kling, M.D., John Kusiak, Ph.D.

NR254 A 28-Week Comparison of Ziprasidone and Haloperidol in Outpatients with Stable Schizophrenia
Steven R. Hirsch, M.D., Aidan Power, M.D.

NR255 The Comparative Anti-Muscarinic-Like Adverse Event Profiles of Olanzapine and Risperidone Treatment in Patinets with Schizophrenia Spectrum Psychosis
John S. Kennedy, M.D., Bruce R. Basson, M.S., Pierre V. Tran, M.D., Charles M. Beasley, Jr., M.D., Frank P. Bymaster, M.S., Gary D. Tollefson, M.D.

NR256 The Texas Medication Algorithm in the Real World
Albana M. Dassori, M.D., John A. Chiles, M.D.

NR257 Clozapine Therapy in Veterans
Martha Sajatovic, M.D., C. Raymond Bingham, Ph.D., David L. Garver, M.D., Gary Ripper, M.A., Frederic C. Blow, Ph.D., Luis F. Ramirez, M.D., Larry Lehmann, M.D.

NR258 Effect of Chronic Olanzapine Treatment on the Course of Presumptive Tardive Dyskinesia
Bruce Kinon, M.D., Bruce R. Basson, M.S., Virginia Stauffer, Ph.D., Denai Milton, M.S., Gary D. Tollefson, M.D.

NR259 Strategies for Switching from Conventional Antipsychotic Drugs to Olanzapine
Bruce Kinon, M.D., Bruce R. Basson, M.S., S.K. Malcolm, B.S., Gary D. Tollefson, M.D.

NR260 Olanzapine Versus Clozapine: An International Double-Blind Study of the Treatment of Resistant Schizophrenia
Charles M. Beasley, Jr., M.D., Jean-Noel Beuzen, M.D., Martin A. Birkett, M.S., Gerilyn M. Kiesler, Pharm.D., Gary D. Tollefson, M.D., Andrew J. Wood, Ph.D.

NR261 Pharmacoeconomic Evaluation of the Treatment of Schizophrenia in Germany: A Comparison of Olanzapine and Haloperidol
Johannes Clouth, A. Spannheimer

NR262 Sexual Function in Antipsychotic-Treated Patients
Ruth A. Dickson, M.D., William M. Glazer, M.D., Joan M.C. Hillson, Ph.D., Stephen A. Boucher, M.D.

NR263 P50 Evoked Potential Measures Correlate with Positive and Negative Syndrome Scale Scores in Unmedicated Patients with Schizophrenia
Radmila M. Manev, M.D., Patricia Tueting, Ph.D., Huma Pandit, M.D., Rajiv P. Sharma, M.D., John M. Davis, M.D.

NR264 Sexual Side Effects of Atypical Antipsychotic Medications
Donna A. Wirshing, M.D., Vincenzio Perkins, M.D., Stephen R. Marder, M.D., William C. Wirshing, M.D.

NR265 The Quantitative Morphology Using MRI of the Corpus Callosum, Thalamus and Cerebellum in Schizophrenia in Korea
Jeong-Seop Lee, M.D., Min-Hee Kang, M.D., Chul-Eung Kim, M.D.

NR266 Lie-Detection Tools in Diagnosing Psychosis
Minna K. Valkonen-Korhomen, M.D., Jairi Karhu, Ph.D., Professor Pasi Karjainen, Johannes Lehtonen, M.D., Anu Koistinen, M.Sc., Professor Juhani Partanen

NR267 Olanzapine in Schizophrenia-Refractory Atypicals
Jean-Pierre Lindenmayer, M.D., Jan Volavka, M.D., Jeffrey A. Lieberman, M.D., Leslie L. Citrome, M.D., Brian B. Sheitman, M.D., Pial Czobor, Ph.D., Miranda H. Chakos, M.D.

NR268 The Longitudinal Relationship of Clinical Symptoms, Cognitive Functioning and Adaptive Life Skills in Geriatric Schizophrenia
Susan R. McGurk, Ph.D., Patrick J. Moriarty, M.A., Philip D. Harvey, Ph.D., Michael Parrella, Ph.D., Leonard White, Ph.D., Kenneth L. Davis, M.D.

NR269 The Link Between Drug Attitudes, Compliance Behaviors and Resource Use Among Individuals with Schizophrenia
A. George Awad, M.D., Vera Mastey, M.S., Diana McDonnell, A.B.D.

NR270 A Seven-Year Naturalistic Study of New and Atypical Neuroleptics in a State Hospital Setting
Cheryl K. Cantrell, M.D., Eric S. Cole, Ph.D.

NR271 Symptom Dimensions in Schizophrenia and Mania: A Factor Analytic Study
David B. Schnur, M.D., Scott P. Smith, Ph.D., Olanyi Oluleye, M.D., Adam Smith, Ph.D., Prathap R. Vaadyala, M.D., Mikhail Manasherov, M.D.

NR272 Gender Differences in Schizophrenia: The Spanish Psicost Study
Susana Araya, M.D., Susana Ochoa, B.Sc., Josep Haro, M.D., Psicost Group

NR273 Clozapine Treatment of Comorbid Substance Abuse in Patients with Schizophrenia
Meghan McCarthy, Penelope Chapman, M.D., Craig G. Richman, M.D., Bryan Yamamoto, Ph.D., Peter F. Buckley, M.D.

NR274 Chronically Hospitalized Inpatients with Schizophrenia: Psychopathologic, Cognitive and Functional Assessments
John W. Kasckow, M.D., Brendan T. Carroll, M.D., Enid Rockwell, M.D., Thomas L. Patterson, Ph.D., James J. Mulchahey, Ph.D., Stephen M. Strakowski, M.D., Dilip V. Jeste, M.D.

NR275 Are There Cognitive Patterns in Schizophrenia?
Marcia Rozenthal, Ph.D., Jerson Laks, M.D., Nelson Maculan, Ph.D., Eliasz Engelhardt, M.D.

NR276 What Is the Schizophrenia Patients' Opinion on Information They Have About Their Disease?
Maurice Ferreri, M.D., Frederic Rouillon, M.D., Philippe Nuss, M.D., Nadine Bazin, M.D., Soraya Farah, M.D., Daniel Gerard, M.D.

NR277 Neurodevelopment of Schizophrenia: A Possible Role of Nerve Growth Factor
Professor Giuseppe Bersani, Dr. Angela Iannitelli, Dr. Francesco Angelucci, Dr. Luigi Aloe

NR278 Variety of Short-Term Course in First-Episode of Psychosis: The Impact of Separating Schizophrenia from Psychotic Mania
Juergen Hoeffler, M.D., Peter Braunig, M.D.

NR279 Depressive Signs and Symptoms in Schizophrenia: A Prospective Blinded Trial of Olanzapine and Haloperidol
Scott W. Andersen, M.S., Gary D. Tollefson, M.D., Todd M. Sanger, Ph.D.

NR280 Olanzapine Versus Risperidone Versus Haloperidol in Early Illness Schizophrenia
Stacy R. David, Ph.D., Scot Purdon, Ph.D., Barry D.W. Jones, M.D., Emmanuel Stip, M.D., Alain Labelle, M.D., Alan F. Breier, M.D., Gary D. Tollefson, M.D.

NR281 A Longitudinal Study of Cognitive and Functional Decline in Patients with Life-Long Schizophrenia
Joseph I. Friedman, M.D., Philip D. Harvey, Ph.D., David N. Adler, M.D., Michael Parrella, Ph.D., Kenneth L. Davis, M.D., Leonard White, Ph.D.

NR282 Ziprasidone Treatment of an Acute Exacerbation of Schizoaffective Disorder: An Analysis of Patients
Paul E. Keck, Jr., M.D., Karen R. Reeves, M.D., Edmund P. Harrigan, M.D.

NR283 High-Velocity Visual Processing Deficits Diminish Schizophrenia Patients' Ability to Recognize Objects
Barry D. Schwartz, Ph.D., Bradley A. Maron, B.A., William J. Evans, Daniel K. Winstead, M.D.

NR284 Schizophrenia Care and Assessment Program: Baseline Characteristics
Patricia Russo, Ph.D., Lolita Burrell, Ph.D., Joseph Vasey, Ph.D., Riad Dirani, B.S., Bryan M. Johnstone, Ph.D.

NR285 Volume Loss in Thalamic Nuclei in Schizophrenia
William M. Byne, M.D., Monte S. Buchsbaum, M.D., Liesl B. Jones, Ph.D., Vahram Haroutunian, Ph.D., Kenneth L. Davis, M.D.

NR286 Neurosteroids and Endozepines in Psychiatric Disorders
Rajiv P. Sharma, M.D., Veska Uzunov, Ph.D., John M. Davis, M.D., Erminio Costa, M.D., Alessandro Guidotti, M.D.

NR287 Acute Changes in CSF 5-HIAA Following Oral Paroxetine Challenge in Healthy Humans
Linda L. Carpenter, M.D., George M. Anderson, Ph.D., Sarah Yasmin, M.D., Martin B. Keller, M.D., Phillip B. Chappell, M.D., Lawrence H. Price, M.D.

NR288 Lithium and Valproate Present Valinomycin Cell Death
Rif S. El-Mallakh, M.D., Rena Li, M.D.

NR289 Depressive Symptoms and Low Estradiol Levels
Julia K. Warnock, M.D., J. Clark Bundren, M.D., David W. Morris, M.A.

NR290 Signaling Pathway of Lipopolysaccharide-Induced Generation of Nitric Oxide in Rat Primary Astrocytes
Min-Cheol Park, M.D., Kwang So, M.D., Lae-Gil Park, M.D.

NR291 Prospective Study of Psychosis in Parkinson's Disease
Suzanne Holroyd, M.D., Lillian Currie, Ph.D., G. Frederick Wooten, M.D.

NR292 Donepezil in Huntington's Disease
Mahmoud A. Parsa, M.D., Heather M. Greenaway, R.N.

NR293 Pattern Reversal Visual Evoked Potentials Identify Psychiatric Patients with One Type of Biologically-Based Explosive Behavior
F. La Marr Heyrend, M.D., Donald R. Bars, Ph.D., Dene Simpson, Ph.D., James C. Munger, Ph.D.

NR294 Clinical Characteristics of Nonepileptic Seizure Patients in an Epilepsy Monitoring Unit
Anthony B. Mickelson, M.D., Emily M. Pressley, D.O., Paul A. Kettl, M.D.

NR295 Psychosocial Evaluation of Epileptic Psychoses in Chile
Fernando Ivanovic-Zuvic, M.D., Luis Alvarado, M.D., Ximena Candia, P.S., Maria Mendez, P.S., Ximena Ibarra, P.S., Jenny Alarcon, P.S., Anita Campos, P.S.

NR296 The Use of Multiple Psychometric Indices of Malingering to Minimize the Possibility of Type II Error in Moderate-Severely Brain Injured Patients
Jack Spector, Ph.D., Deborah L. Warden, M.D., Alan G. Lewandowski, Ph.D., Andres M. Salazar, M.D.

NR297 Sertraline in the Treatment of Major Depression Following Mild Traumatic Brain Injury
Jesse R. Fann, M.D., Jay M. Uomoto, Ph.D., Wayne J. Katon, M.D.

NR298 How Mild is Mild Head Injury? A Neuropsychiatric Study
Michael A. Ocana, M.D., Alison Jardine, O.T., Donna Ouchterlony, M.D., Anthony Feinstein, M.D.

NR299 Longitudinal Neuropsychological Assessment of Decline and Incident of Dementia in Very Old Age
Friedel Reischies, Ph.D., Rainer Schaub

NR300 Dorsolateral Prefrontal Versus Medial Frontal Function in Psychotic Patients: A Neuropsychological Study
Igor I. Galynker, M.D., Lisa J. Cohen, Ph.D., Sniezyna Watras-Gans, Ph.D., Lara Eschler, M.A., Patricia Lopez, B.A., Sean Murphy, B.A., Alice John, M.D.

NR301 Obsessive-Compulsive Behaviors in Adults with a Past History of Childhood Rheumatic Fever
Fernando R. Asbahr, M.D., Andre B. Negrao, M.D., Renato T. Ramos, M.D., Roberto Sassi, M.D., Valentim Gentil, M.D.

NR302 Growth Hormone Response to Baclofen in Manic Patients and Healthy Controls
I-Shin Shiah, M.D., Lakshmi N. Yatham, M.B., Raymond W. Lam, M.D., Edwin M. Tam, M.D., Athanasios P. Zis, M.D.

NR303 Borna Disease Virus in Panic Disorder
Johann Windhaber, M.D., Karl Dantendorfer, M.D., Norbert Nowotny, Ph.D., Michaela Amering, M.D., Sibylle Herzog, Ph.D., Dagmar Maierhofer, M.D.

NR304 Ipsapirone As a Serotonergic Probe in Personality Disorder Patients
Diedre A. Reynolds, M.D., Vivian Mitropoulou, M.A., Antonia S. New, M.D., Larry J. Siever, M.D.

NR305 Improved Retention Designs for Addiction
David M. McDowell, M.D., Jami Rothenberg, Ph.D., Andrew Sia, B.A., Edward V. Nunes, M.D., Frances R. Levin, M.D.

NR306 Teachers' Perspective on School Violence
Kathleen M. Fisher, Ph.D., Paul A. Kettl, M.D.

NEW RESEARCH

Tuesday, May 18, 1999, 3:00 p.m.-5:00 p.m.

New Research 8 – Poster Session – Hall D, Lower Level, Convention Center

ANXIETY; ALCOHOL AND SUBSTANCE ABUSE; SUICIDE; VIOLENCE; CHILD AND ADOLESCENT PSYCHIATRY; INFANT AND CHILDHOOD DISORDERS; AND PERSONALITY DISORDERS

Moderator: Edmond H.T. Pi, M.D.

NR307 Valproate Use in Schizophrenia: 1994-1998
Leslie L. Citrome, M.D., Jerome Levine, M.D., Baerbel Allingham, M.S.

NR308 The Ventilatory Response to Cholecystokinin-Tetrapeptide in Healthy Volunteers
Martin A. Katzman, M.D., James Duffin, Ph.D., Jakov Shlik, M.D., Jacques Bradwejn, M.D.

NR309 Cognitive-Behavior Therapy Alone Versus Cognitive-Behavior Therapy with Pharmacotherapy in the Treatment of Panic Disorder with Agoraphobia
Vladan Starcevic, M.D., Goran Bogojevic, M.D., Borwin Bandelow, M.D.

NR310 Two Multicenter Trials Evaluating Sertraline and Placebo for the Treatment of PTSD
Barbara Rothbaum, Ph.D., Gail Farfel, Ph.D.

NR311 11-Year Follow-Up of Panic Disorder
Michaela Amering, M.D., Hemma Griengl, M.D., Johann Windhaber, M.D., Heinz Katschnig, M.D.

NR312 Retrospective Follow-Up Study of Body Dysmorphic Disorder
Katharine A. Phillips, M.D., Jon Grant, J.D., Ralph S. Albertini, M.D., Robert Stout, Ph.D., Lawrence H. Price, M.D.

NR313 Quality of Life in Body Dysmorphic Disorder
Katharine A. Phillips, M.D.

NR314 Predictors of Chronic PTSD: A Prospective Study
Sara A. Freedman, M.Sc., Dalia Brandes, M.A., Tuvia Peri, Ph.D., Arieh Y. Shalev, M.D.

NR315 Childhood Trauma and Dissociative Symptoms in Panic Disorder
Randall D. Marshall, M.D., Franklin R. Schneier, M.D., Shu-Hsing Lin, Ph.D.

NR316 Panic Disorder: Treatment Improves Immune Function
R. Bruce Lydiard, M.D.

NR317 The Johns Hopkins OCD Family Study: OCD Familiality
Gerald Nestadt, M.D., Jack F. Samuels, Ph.D., Michelle Labuda, Ph.D., Oscar J. Bienvenu III, M.D., Kung Yee Liang, Ph.D., Mark A. Riddle, M.D., Rudolf Hoehn-Saric, M.D.

NR318 A Long-Term Study of Panic Disorder: A Comparison
Pinhas N. Dannon, M.D., Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

NR319 Short-Term Potentiation of Paroxetine with Clonazepam in the Treatment of Patients with Panic Disorder
Pinhas N. Dannon, M.D., Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

NR320 Does Weight Change Follow Recovery from Panic Disorder?
Pinhas N. Dannon, M.D., Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

NR321 Cerebral Perfusion Before and After Flashbacks in Patients with Chronic PTSD
Elizabeth A. Osuch, M.D., Una D. McCann, M.D., Marilla Geraci, R.N., Christina Morgan, B.A., Brenda E. Benson, B.S., Frank W. Putnam, Jr., M.D., Robert M. Post, M.D.

NR322 Early Response to Sertraline As a Predictor of 12-Week Outcome in Panic Disorder
Mark H. Pollack, M.D., Mark H. Rapaport, M.D., Cathryn M. Clary, M.D., Robert Wolkow, M.D., Michael W. Otto, Ph.D.

NR323 Efficacy of Sertraline in Long-Term Treatment in Panic Disorder: Preliminary Results of a Multicenter Study
Anita L.H. Clayton, M.D., R. Bruce Lydiard, M.D., Robert Wolkow, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D.

NR324 Early Versus Late-Onset Panic Disorder: Vulnerability
Javaid I. Sheikh, M.D., Pamela J. Swales, Ph.D., Glenn Brassington, M.A.

NR325 Impulse-Related Grooming Disorders Across Anxiety
Laura J. Summerfeldt, Ph.D., Margaret A. Richter, M.D., Martin M. Antony, Ph.D., Karyn E. Hood, M.Ed., Richard P. Swinson, M.D.

NR326 A Double-Blind, Placebo-Controlled Trial of Paroxetine for Social Anxiety Disorder in South Africa
Dan J. Stein, M.D., Michael Berk, M.D., Charl Els, M.D., Robin A. Emsley, M.D., Don Wilson, M.D., Rosemary Oakes, Ph.E., Brian Hunter, M.D.

NR327 Predictors of Response to Pharmacotherapy in Social Anxiety Disorder: An Analysis of Three Placebo-Controlled Paroxetine Trials
Dan J. Stein, M.D., Murray B. Stein, M.D., R. Bruce Lydiard, M.D., Cornelius D. Pitts, R.P.H., Rosemary Oakes, Ph.E., Brian Hunter, M.D.

NR328 PTSD with Psychotic Symptoms
Janet E. Johnson, M.D., Fredric J. Sautter, Ph.D.

NR329 Sexual Dysfunction in Chronic PTSD Patients
Netta Levin, M.D., Tuvia Peri, Ph.D., Arieh Y. Shalev, M.D.

NR330 A Placebo-Controlled Study of Sertraline in Generalized Social Phobia
Michael A. Van Ameringen, M.D., Richard P. Swinson, M.D., Roger M. Lane, M.D.

NR331 A Placebo-Controlled Pilot Study of Sertraline in PTSD
Daniela Amital, M.D., Joseph Zohar, M.D., Moshe Kotler, M.D., Avi Bleich, M.D., Hanoch Nrodovnik, M.D., Adit Nevo, M.D., Roger M. Lane, M.D.

NR332 Components of Impulsivity in OCD Subtypes
Karyn E. Hood, M.Ed., Margaret A. Richter, M.D., Martin M. Antony, Ph.D., Laura J. Summerfeldt, Ph.D., Richard P. Swinson, M.D.

NR333 Personality Dimensions in OCD Probands and Controls
Jack F. Samuels, Ph.D., Gerald Nestadt, M.D., Oscar J. Bienvenu III, M.D., Paul T. Costa, Ph.D., Mark A. Riddle, M.D., Margaret A. Dees, B.A., Bernadette C. Goggins, M.D., Jennifer Hahn, Ph.D., David Wellen, Ph.D.

NR334 Predictors of Illness: Intrusiveness in Anxiety Disorders
Diana Koszycki, Ph.D., Darryl Appleton, M.D., Jacques Bradwejn, M.D.

NR335 Safety of Sertraline in Long-Term OCD Treatment: Preliminary Results of a Multicenter Study
Wayne K. Goodman, M.D., Peter D. Londborg, M.D., R. Bruce Lydiard, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D., Robert Wolkow, M.D.

NR336 A Six-Month Evaluation of Three Dose Levels of Venlafaxine Extended-Release in Nondepressed Outpatients with GAD
David Hackett, M.Sc., Virginia Parks, B.Sc., Eliseo Salinas, M.D.

NR337 Safety of Sertraline in Long-Term Treatment in Panic Disorder: Preliminary Results of a Multicenter Study
Mark H. Rapaport, M.D., Robert B. Pohl, M.D., Robert Wolkow, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D.

NR338 Alcoholism and Immunity: Role of Liver Disease
Steven J. Schleifer, M.D., Tonya S. Benton, M.A., Steven E. Keller, Ph.D.

NR339 Effects of Assertive Outreach in the Dually Diagnosed Patient
Christian R. Miner, Ph.D., Richard N. Rosenthal, M.D., David J. Hellerstein, M.D.

NR340 Who Responds to Visual Cocaine Cues? Relationship to Electroretinogram Amplitude
David A. Smelson, Psy.D., Alec Roy, M.D., Monique Roy, M.D., Charles Engelhart, Ph.D., Douglas M. Ziedonis, M.D., Jill Williams, M.D., Miklos F. Losonczy, M.D.

NR341 Alliance and Treatment Engagement in Substance-Abusing Patients with Schizophrenia
Richard N. Rosenthal, M.D., Christian R. Miner, Ph.D., David J. Hellerstein, M.D., J. Christopher Muran, Ph.D.

NR342 Adverse Childhood Experiences and Alcoholism and Depression Among Adult Children of Alcoholics
Robert F. Anda, M.D., Vincent J. Felitti, M.D., Daniel P. Chapman, Ph.D., Wayne H. Giles, M.D., Janet B. Croft, Ph.D., David F. Williamson, Ph.D., Dale Nordenberg, M.D.

NR343 Psychological Responses to Meta-Chloropiperazine in Cocaine Dependence
Ashwin A. Patkar, M.D., Edward Gottheil, M.D., Wade H. Berrettini, M.D., Robert Sterling, Ph.D., Stephen Weinstein, Ph.D., Ronald D. Serota, M.D.

NR344 A Study of Polymorphisms of Alcohol Dehydrogenase and Aldehyde Dehydrogenase Genes in Type I and Type II Alcoholics
Ihn-Geun Choi, M.D., Eun-Kee Chung, M.D., Leen Kim, M.D., Dong-Yul Oh, M.D., Yu-Sang Lee, M.D., Gil-Sook Kim, M.D., Young-Gyu Chai, Ph.D.

NR345 Drinking Relapse in Male Alcoholics During Treatment with Naltrexone, Lithium or Carbamazepine
Janusz K. Rybakowski, M.D., Marcin Ziolkowski, M.D., Joseph R. Volpicelli, M.D.

NR346 The Association Between Substance Use and Medical Problems
Eric Weintraub, M.D., Lisa B. Dixon, M.D., Jeannette Johnson, Ph.D., Lyle B. Forehand, Jr.

NR347 Effects of Subtype Opioid Receptor Antagonists on Alcohol Intake in C57BL/6 Mice
Sung-Gon Kim, M.D., Je-Min Park, M.D., Myung-Jung Kim, M.D.

NR348 Serontonergic Activity and Insulin Sensivity
Cyril Hoschl, M.D., Jiri Horacek, M.D., Mariana Kuzmiakova, M.D.

NR349 Pilot Study of Acute and Long-Term Phenomena of Ultrarapid Opioid Detoxification
Igor Elman, M.D., Michael N. D'Ambra, M.D., Sara Krause, B.A., Martha Kane, Ph.D., Robert Morris, S.T.M., Liam Tuffy, M.S.W., David R. Gastfriend, M.D.

NR350 Impact of Methadone Maintenance Treatment Upon Criminality Among Heroin Addicts
Chandresh Shah, M.D., Elbert Y. Kellem, Carl L. Wong, L.C.S.W.

NR351 Suicide Attempts Among Substance Abusers
Kristinn Tomasson, M.D.

NR352 Naltrexone in Alcoholism Treatment: Patient Efficacy and Compliance
Pekka Heinala, M.D., Hannu Alho, M.D., Kimmo Kuoppasalmi, M.D., Jouko K. Lonnqvist, M.D., David Sinclair, Ph.D., Kalervo Kiianmaa, Ph.D.

NR353 Acceptance of a Smoking Ban by Alcoholic Patients
Daniele Zullino, M.D.

NR354 Some Correlates of Drug Use in a County Correctional Facility: Implication for Prevention and Other Services
Samuel O. Okpaku, M.D., Celia Larson, Ph.D.

NR355 Nicotine Replacement Methods on a Psychiatric Unit
Dale A. D'Mello, M.D., Govardhana R. Bandlamudi, M.D.

NR356 Efficacy of Piracetam in the Treatment of Heroin Addiction
Haroon R. Chaudhry, M.D., Najma Najam, Ph.D., Muhammad R. Chaudhry, M.D.

NR357 Total Serum Cholesterol in Relation to Psychological Parameters in Parasuicide
Malcolm R. Garland, M.B., Dara D. Hickey, M.B., Sean K. Cunningham, M.D., Aidan A. Corvan, M.B., Noel Walsh, M.D., Jeanette W. Golden, M.B.

NR358 Risk Factors for Suicide in Emergency Psychiatry
Paul H. Desan, M.D., Kathy M. Sanders, M.D.

NR359 ECT and Inpatient Suicide
Verinder Sharma, M.B.

NR360 Modern Family Structure and Suicidal Behavior
Francoise Chastang, M.D., Patrice Rioux, M.D., Laurent Leclerc, M.D., Viviane Kovess, M.D., Edouard Zarifian, M.D.

NR361 A Family History of Intermittent Explosive Disorder
Emil F. Coccaro, M.D.

NR362 Knowledge and Attitudes of Trauma in Bosnians
Stevan M. Weine, M.D., Timothy Johnson, Ph.D., Nenad Brkic, M.D., Alma Ramic, B.S., Yasmina Kulauzovic, B.A., Ivan Pavkovic, M.D., Robin Mermelstein, Ph.D.

NR363 Refugees Presenting or Not Presenting for Services
Stevan M. Weine, M.D., Lisa Razzano, Ph.D., Kenneth Miller, Ph.D., Alma Ramic, B.S., Nenad Brkic, M.D., Amer Smajkic, M.D., Zvezdana Djune Bijedic, M.D.

NR364 Child-on-Child Sexual Abuse: Play or Victimization?
Jon A. Shaw, M.D., John Lewis, Ph.D., Rosemarie Rodriguez, B.A., James Rosado, M.S., Andrea Loeb, Ph.D.

NR365 Specificities of Symptoms in Male Adolescents Reporting Sexual Assault
Jean-Michel Darves-Bornoz, M.D., Marie Choquet, Ph.D., Sylvie Ledoux, Ph.D.

NR366 Patterns of Violence in Psychiatric Inpatients
Henry Glickman, Ph.D., Leslie L. Citrome, M.D.

NR367 Irritability and Aggression After Moderate to Severe Traumatic Brain Injury
Deborah L. Warden, M.D., Elizabeth Martin, B.Sc., Mary Coyle, R.N.C., Karen A. Schwab, Ph.D., Mary M. Rosner, M.A., Jack Spector, Ph.D., Andres M. Salazar, M.D.

NR368 Divalproex in PTSD Resulting from Sexual Abuse
Joseph F. Goldberg, M.D., Joyce E. Whiteside, B.A., Marylene Cloitre, Ph.D., Lori L. Davis, M.D., Han Hyemee, M.A.

NR369 Objective Measurement of Ritalin Response in ADHD Boys
Ann Polcari, R.N., Martin H. Teicher, M.D., Mary Foley, R.N., Cynthia McGreenery

NR370 Preliminary Evidence for Circadian Dysregulation in Children with Autism/ Pervasive Development Disorder
Carryl P. Navalta, Ph.D., Martin H. Teicher, M.D., Cynthia McGreenery

NR371 Resistance of Thyroid Hormone Transgenic Mice: An Animal Model for ADHD
Hermant K. Pandey, M.D., Kia Greene, Emmeline Edwards, Ph.D., Mangla S. Gulati, M.D., Sui-Foh Yu, Ph.D., Louis J. Detolla, Ph.D., Peter Hauser, M.D.

NR372 Venlafaxine and Dothiepin in Elderly Depressed Patients: A Comparison of Efficacy and Effects on Cognition and Subjective Sleep
Neil Stanley, Susan Kimber, Diane B. Fairweather, Ph.D., Ian Hindmarch, Ph.D.

NR373 Assessing the Clinical Practice of Prescribing Adderall Versus Methylphenidate to Children with ADHD
Stephen Grcevich, M.D., William A. Rowane II, M.D., Beth Marcellino, B.A., Shannon Sullivan-Hurst, B.A.

NR374 Perinatal Risk Factors Associated with ADHD: A Community Study
Boong Nyun Kim, M.D., Soo-Churl Cho, M.D., Mi-Na Ha, M.D., Hyun-Kyoung Seo, M.D., Hye-Kyoung Hwang, M.D.

NR375 CBF Change During Methylphenidate Treatment in Subjects with ADHD
Boong Nyun Kim, M.D., Soo-Churl Cho, M.D., Jae-Sung Lee, Ph.D., Dong-Soo Lee, M.D.

NR376 Guanfacine and Post-Traumatic Sleep Disorders in Boys
Joseph P. Horrigan, M.D., L. Jarrett Barnhill, Jr., M.D.

NR377 Adolescent Eating Behavior: A Factor in Developing Alcohol Use Disorders?
Carol A. Beresford, M.D., Steven Wilson, Robin Corley, Ph.D., John K. Hewitt, Ph.D., Thomas P. Beresford, M.D.

NR378 Famotidine Treatment of Young Children with Autistic Spectrum Disorders
Linda Linday, M.D., John A. Tsiouris, M.D., Ira L. Cohen, Ph.D., Robert Decresce, M.D.

NR379 Racial Differences in the Treatment of Adolescents with Bipolar Disorder
Melissa P. Delbello, M.D., Cesar A. Soutullo, M.D., Jennifer E. Ochsner, B.S., Susan L. McElroy, M.D., Paul E. Keck, Jr., M.D., Stephen M. Strakowski, M.D.

NR380 Fire Setting in Comorbid Adolescents
Pe Shein Wynn, M.D., Mary A. Pressman, M.D.

NR381 A Survey of Early Symptoms in Children with Bipolar Illness
Robert M. Post, M.D., Emily L. Fergus, B.S., Gabriele S. Leverich, M.S.W., Andrew M. Speer, M.D.

NR382 Stability of Major Depression and Depressive Symptomatology in Child and Adolescent Inpatients
Richard P. Malone, M.D., David S. Bennett, Ph.D., Muniya S. Choudhury, B.A., Vicki L. Martin, M.D., James F. Luebbert, M.D., Mary A. Delaney, M.D.

NR383 Conduct Disorder in Children Treated with Risperidone
Robert L. Findling, M.D., Nora K. McNamara, M.D., Lisa A. Branicky, M.A., Eloise Lemon, R.N., Mary A. O'Riordan, M.S., Mark D. Schluchter, Ph.D., Jeffrey L. Blumer, M.D.

NR384 Childhood Abuse: Limbic System Checklist-33 and Cerebellar Vermis
Carl M. Anderson, Ph.D., Ann Polcari, R.N., Cindy E. McGreenery, Luis C. Maas, M.S., Perry F. Renshaw, M.D., Martin H. Teicher, M.D.

NR385 Affect Dysregulation in Ataque de Nervios and History of Childhood Trauma
Daniel S. Schechter, M.D., Randall D. Marshall, M.D., E. Salman, D. Goetz, S. Davies, E. Dong, Michael R. Liebowitz, M.D.

NR386 The Guided Clinical Interview for Axis II: Reliability
J. Christopher Perry, M.D., Ann Greif, Ph.D., Floriana Ianni, M.D., Carmella Roy, M.D.

NR387 Trans-Meta-Analytic Comparison Across Specific Disorders
J. Christopher Perry, M.D.

NR388 Impulsive Aggression Associated with HTR1B Genotype in Personality Disorders
Antonia S. New, M.D., Joel Gelernter, M.D., Vivian Mitropoulou, M.A., Harold W. Koenigsberg, M.D., Larry J. Siever, M.D.

NR389 A Study of Personality Dysfunction in Adolescents in Urban Beijing
Yueqin Huang, M.D., Shumei Yun, M.D., Lihong Shi, M.D., Guizhi Zhang, Youxin Xu, M.D.

NR390 Affective Instability in the Personality Disorders
Harold W. Koenigsberg, M.D., Philip D. Harvey, Ph.D., Vivian Mitropoulou, M.A., Antonia S. New, M.D., Larry J. Siever, M.D.

NR391 An Epidemiological Study of Personality Disorder
Xiufen Liu, M.D., Yueqin Huang, M.D., Liming Lee, M.D.

NR392 Personality Disorders and Depression: Effect of Antidepressant Treatment
Maurizio Fava, M.D., Amy Farabaugh, M.A., Margarita L. Delgado, B.A., Emma C. Wright, B.S., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., John J. Worthington III, M.D.

NR393 Treatment Lengths of Comorbid Axis I and II Illness
Bruce W. Phariss, M.D., David M. Erlanger, Ph.D.

NR394 Gabapentin in the Treatment of Depression and Anxiety in BPD
Karen J. Rosen, M.D., Elizabeth B. Simpson, M.D., Teri B. Pearlstein, M.D., Jacqueline Pistorello, Ph.D., Ellen Costello, Ph.D., Ann Begin, Ph.D.

NR395 Placebo Patterns of Response with Mirtazapine
Andrew A. Nierenberg, M.D., Jonathan E. Alpert, M.D., Jerrold F. Rosenbaum, M.D., Charlotte Kremer, M.D., Paul Reimitz, Ph.D., Maurizio Fava, M.D.

NR396 Personality, Alcohol and Drug Use Disorders As Predictors of Criminality
Carlos A. Hernandez-Avila, M.D., Joseph A. Burleson, Ph.D., James Poling, Ph.D., Howard Tennen, Ph.D., Bruce J. Rounsaville, M.D., Henry R. Kranzler, M.D.

NR397 The Relationship Between Personality Impairment and MDD in Psychiatric Inpatients
Lisa J. Cohen, Ph.D., Igor I. Galynker, M.D., Shira Genack, B.A., Dina Zudick, B.A., Lara Eschler, M.A., Patricia Lopez, B.A., Sniezyna Watras-Gans, Ph.D.

NR398 Pharmacotherapy of Borderline Patients
Frances R. Frankenburg, M.D., Mary C. Zanarini, Ed.D., Tilla F. Ruser, M.D.

NEW RESEARCH

Wednesday, May 19, 1999, 9:00 a.m.-10:30 a.m.

New Research 9 – Oral/Slide Session – Rooms 23/24, Lower Level, Convention Center

MOOD DISORDERS

Chp.: Carol A. Tamminga, M.D.

NR399 Pindolol Addiction Accelerates Antidepressant Effects of ECT — 9:00 a.m.
Lakshmi N. Yatham, M.B., I-Shin Shiah, M.D., M. Srisurapanont, M.D., Raymond W. Lam, M.D., Edwin M. Tam, M.D., Athanasios P. Zis, M.D.

NR400 Acute TSH Change with Transcranial Magnetic Stimulation in Major Depression — 9:15 a.m.
Martin P. Szuba, M.D., Anil K. Rai, M.D., Judith S. Kastenberg, M.D., John P. O'Reardon, M.D., Howard J. Ilivicky, M.D., David Gettes, B.A., Dwight L. Evans, M.D.

NR401 Acute Mood Effects of Transcranial Magnetic Stimulation Over Left Prefrontal Cortex in Major Depression — 9:30 a.m.
Martin P. Szuba, M.D., Anil K. Rai, M.D., Judith S. Kastenberg, M.D., John P. O'Reardon, M.D., Howard J. Ilivicky, M.D., Cara Grugan, B.A., Dwight L. Evans, M.D.

NR402 Psychopharmacologic Treatment Recommendations for Major Depression — 9:45 a.m.
Joyce C. West, M.P.P., Philip J. Leaf, Ph.D., Deborah A. Zarin, M.D., Harold Alan Pincus, M.D.

NR403 Management of Major Depression in Rheumatoid Arthritis — 10:00 a.m.
James R. Slaughter, M.D., Jerry C. Parker, Ph.D., Karen L. Smarr, M.A., Sandra K. Johnston, M.A., Marydeth L. Priesmeyer, Ph.D., Gail E. Wright, Ph.D., Janda K. Buchholz, B.A.

NR404 Dehydroepiandrosterone Treatment of Major Depression — 10:15 a.m.
Victor I. Reus, M.D., Owen M. Wolkowitz, M.D., Audrey Keebler, Nicola Nelson, Mirit Friedland, Louann Brizendine, M.D., Eugene Roberts

NEW RESEARCH

Wednesday, May 19, 1999, 9:00 a.m.-10:30 a.m.

New Research 10 – Oral/Slide Session – Rooms 25/26, Lower Level, Convention Center

DEPRESSIVE DISORDERS AND SUICIDAL BEHAVIOR

Chp.: Daniel P. Chapman, M.D.

NR405	Nefazodone HCl, Cognitive Behavioral Analysis System of Psychotherapy and Combination Therapy for the Acute Treatment of Chronic Depression Martin B. Keller, M.D., James P. McCullough, Ph.D., A. John Rush, M.D., Daniel Klein, Ph.D., Alan F. Schatzberg, M.D., Alan J. Gelenberg, M.D., Michael E. Thase, M.D.	9:00 a.m.
NR406	Preliminary Evidence for a Role of Phospholipase C in Genetics of Bipolar Disorder Responsive to Lithium Martin Alda, M.D., Gustavo Turecki, M.D., Paul Grof, M.D., Guy A. Rouleau, M.D., Igsli Group	9:15 a.m.
NR407	Nortriptyline for Treatment-Resistant Depression? Andrew A. Nierenberg, M.D., Lindy E. Graham, B.A., Nelson Vega, B.A., Jonathan E. Alpert, M.D., John J. Worthington III, M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.	9:30 a.m.
NR408	Effect of Depression on Health Care Utilization in Diabetes Patrick J. Lustman, Ph.D., Kenneth E. Freedland, Ph.D., Linda S. Griffith, M.S.W., Candace R. Miller, M.A., Linda D. Barnes, C.M.A., Eugene H. Rubin, M.D., Ray E. Clouse, M.D.	9:45 a.m.
NR409	Olfaction in SAD Teodor T. Postolache, M.D., Richard L. Doty, Ph.D., Thomas L. Wehr, M.D., Leo Sher, M.D., Erick H. Turner, M.D., Gerard E. Bruder, Ph.D., Norman E. Rosenthal, M.D.	10:00 a.m.
NR410	Secular Trends in the Seasonality of Suicides in Hungary Between 1981 and 1996 Zoltan Rihmer, M.D., Peter Pestality, M.D., Jozsef Vitrai, Ph.D., Wolfgang Rutz, M.D.	10:15 a.m.

NEW RESEARCH

Wednesday, May 19, 1999, 12 noon-2:00 p.m.

New Research 11 – Poster Session – Hall D, Lower Level, Convention Center

MOOD, SEXUAL AND GENDER IDENTITY DISORDERS, CONSULTATION-LIAISON AND EMERGENCY PSYCHIATRY; AND FORENSIC PSYCHIATRY

Moderator: Javier I. Escobar, M.D.

NR411 Effects of Light Therapy on Suicidal Ideation in SAD Patients
Raymond W. Lam, M.D., Edwin M. Tam, M.D., I-Shin Shiah, M.D., Lakshmi N. Yatham, M.B., Athanasios P. Zis, M.D.

NR412 Post-Discharge Compliance with Mood Stabilizers
David L. Pogge, Ph.D., Philip D. Harvey, Ph.D., Susan R. Borgaro, Ph.D., Anne Lloyd, Ph.D.

NR413 Vigilance and Cognition in Antisocial Adolescents
David L. Pogge, Ph.D., Thomas Dimitry, Ph.D., Susan R. Borgaro, Ph.D., John Stokes, Ph.D., Philip D. Harvey, Ph.D.

NR414 Predictors of Short-Term Outcome in Major Depression
Elena Ezquiaga, M.D., Aurelio Garcia, M.D., Consuelo De Dios, M.D., Julieta Montejo, M.D., Fe Bravo, M.D., Ana De Leiva

NR415 Serotonergic and Noradrenergic Function in Depression
Fabrice Duval, M.D., Humberto Correa, M.D., M. Claude Mokrani, Ph.D., Marc-Antoine Crocq, M.D., Paul Bailey, M.D., Than Son Diep, M.D., Jean-Paul Macher, M.D.

NR416 HPA Axis Function and Serotonin Activity in Depression
Fabrice Duval, M.D., Humberto Correa, M.D., M. Claude Mokrani, Ph.D., Marc-Antoine Crocq, M.D., Paul Bailey, M.D., Than Son Diep, M.D., Jean-Paul Macher, M.D.

NR417 Repetitive Transcranial Magnetic Stimulation Associate to Sertraline in Major Depression
Alicia Gonzalez, M.D., Mauro T. Garcia, M.D., Magdalena Crespi, M.D., Antoni Mayol, Ph.D., Maria Romera, M.D., Laura De La Fuente, Ph.D., Javier Mico, M.D.

NR418 Depression Relapse During Long-Term SSRI Therapy
Joseph F. Goldberg, M.D., Joyce E. Whiteside, B.A., James H. Kocsis, M.D., Carrie J. Endick, B.A.

NR419 Serotonin Transporter Gene-Linked Polymorphic Region and Antidepressant Response to Fluvoxamine
Raffaella Zanardi, M.D., Enrico Smeraldi, M.D., Francesco Benedetti, M.D., Daniela Di Bella, M.D., Jorge Perez, M.D., Marco Catalano, M.D.

NR420 Repetitive Transcranial Magnetic Stimulation As Add-On Treatment in Drug- Resistant Major Depression
Mauro T. Garcia, M.D., Henar Arnillas, M.D., Oriol Lafau, M.D., Inmaculada Capllonch, M.D., Alvaro Pascual-Leone, M.D., Olga Ibarra, M.D., Jose M. Tormos, M.D.

NR421 5-HT2 Receptors in Depression Pre/Post Paroxetine
Jeffrey H. Meyer, M.D., Shitij Kapur, M.D., Gregory M. Brown, M.D., Beata Eisfeld, B.Sc., Sidney H. Kennedy, M.D., Sylvain Houle, Ph.D.

NR422 Sexual Dysfunction Before and After Moclobemide, Paroxetine, Sertraline and Venlafaxine
Sidney H. Kennedy, M.D., Susan Dickens, M.A., Beata Eisfeld, B.Sc., R. Michael Bagby, Ph.D.

NR423 TRH-TSH Test in First-Episode Major Depression
Luis Risco, M.D., Hernan Silva, M.D., Fernando Lolas, M.D., Claudio Liberman, M.D.

NR424 Nondepressive Disorders in Outpatients with MDD
Mark Zimmerman, M.D., Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

NR425 Are Patients in Pharmacological Treatment Trials of Depression Representative of Patients in Routine Clinical Practice?
Mark Zimmerman, M.D., Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

NR426 Sildenafil Citrate for Erectile Dysfunction and Depression
Matthew A. Menza, M.D., Steven P. Roose, M.D., Stuart N. Seidman, M.D., Raymond Rosen, Ph.D., Ridwan Shabsigh, M.D., Diane M. Chow, Richard L. Siegel, M.D.

NR427 Hospital Management of Manic and Hypomanic States
Francois Borgeat, M.D., Daniele Zullino, M.D.

NR428 Olanzapine Versus Placebo: Antimanic Effect and Cognitive Function in Psychotic and Nonpsychotic Bipolar I Patients
Mauricio F. Tohen, M.D., Thomas Jacobs, MAS, Kimberley S. Gannon, Ph.D., Todd M. Sanger, Ph.D., Verna M. Toma, B.S., Gary D. Tollefson, M.D.

NR429 Olanzapine Versus Haloperidol in Schizoaffective Bipolar Disorder: A Repeated-Measures Analysis
Mauricio F. Tohen, M.D., Fan Zhang, Ph.D., Todd M. Sanger, Ph.D., Kimberley S. Gannon, Ph.D., Gary D. Tollefson, M.D.

NR430 Fluoxetine Versus Sertraline and Paroxetine in Major Depression: Long-Term Changes in Weight
Maurizio Fava, M.D., Jerrold F. Rosenbaum, M.D., Rajinder A. Judge, M.D., Sharon L. Hoog, M.D., Denni Millard, M.S., Stephanie Koke, M.S.

NR431 An Open-Label Study with Mirtazapine in Depressed Patients Who Are SSRI Treatment Failures
Maurizio Fava, M.D., David L. Dunner, M.D., John H. Greist, M.D., Sheldon H. Preskorn, M.D., Madhukar H. Trivedi, M.D., John M. Zajecka, M.D., Miriam Cohen, Ph.D.

NR432 Bipolar II Depression in Late Life: Prevalence and Clinical Features in 525 Depressed Outpatients
Franco Benazzi, M.D.

NR433 Prevalence of Bipolar II Disorder in Atypical Depression
Franco Benazzi, M.D.

NR434 Mania in Women
Jose de Leon, M.D., Ana Gonzalez-Pinto, M.D., Berta Lalaguna, Blanca Corres, M.D., Juan L. Figuerido-Poulain, M.D., Jose L. Perez de Heredia, M.D., Fernando Mosquera, M.D.

NR435 Reboxetine Prevents Relapse and Recurrence in Depression
Marcio V. Versiani, M.D.

NR436 Quality-of-Life Improvement with Lamotrigine Treatment of Bipolar Depressed Patients
Lynda Bryant-Comstock, M.P.H., Chai-Ni Chang, M.S., Seren Phillips, M.Sc.

NR437 Impact of Pathological Alcohol Use on Acute Mania
Ihsan M. Salloum, M.D., Jack R. Cornelius, M.D., Levent Kirisci, Ph.D., Juan E. Mezzich, M.D., Crystal R. Spotts, M.Ed., Dennis C. Daley, M.S.W.

NR438 Depressive Symptom Profile in Adults and Adolescents
Paul J. Ambrosini, M.D., Adam Hauser, B.A., Michael D. Bianchi, M.D., Josephine Elia, M.D., Harris Rabinovitch, M.D.

NR439 Antidepressant Profile of Lamotrigine Treatment of Bipolar Disorder
R. Bruce Lydiard, M.D., Jeffrey T. Apter, M.D., Charles L. Bowden, M.D., Joseph R. Calabrese, M.D., J. Downs, M.D., John A. Ascher, M.D., Richard H. Weisler, M.D.

NR440 Trichotillomania Among Depressed Adults: Prevalence and Psychiatric Comorbidity
Richard L. O'Sullivan, M.D., Leena Kizilbash, M.D., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., Nancy J. Keuthen, Ph.D., Maurizio Fava, M.D.

NR441 Optimal Regimen of Phototherapy for Seasonal Depression
Ahmed A.R. Mubarak, M.D., El Sayed Gad, M.D., Ahmed Soffar, Ph.D.

NR442 Lamotrigine in the Treatment of Unipolar Depression
Peter D. Londborg, M.D., Neal R. Cutler, M.D., Lynn A. Cunningham, M.D., Francis X. Haines, M.D., Jorg J. Pahl, M.D., Scott A. West, M.D., Eileen Monaghan

NR443 The Postpartum Period As a Risk Factor for Switching from Bipolar II to Bipolar I Disorder
Deborah A. Sichel, M.D., Cassandra P. Morabito, M.Ed.

NR444 Long-Term Olanzapine Treatment of Mania
Todd M. Sanger, Ph.D., Mauricio F. Tohen, M.D., Thomas Jacobs, MAS, Kimberley S. Gannon, Ph.D., Michael Greaney, M.S., Gary D. Tollefson, M.D.

NR445 The Course of Depression in Elderly Collaborative Depression Study Subjects
Timothy I. Mueller, M.D., Nina Leventhal, B.A., Andrew C. Leon, Ph.D., Robert Kohn, M.D., Martin B. Keller, M.D.

NR446 Comorbidity, Insight and Psychopathology in Pure and Mixed Mania with Psychotic Features
Stefano Pini, M.D., Antonio Tundo, M.D., Liliana Dell'Osso, M.D., Nannina Sarno, M.D., Giovanni B. Cassano, M.D.

NR447 Reboxetine Versus Fluoxetine: Benefits in Social Function
Juan Massana, M.D.

NR448 Efficacy of Reboxetine in Placebo-Controlled Trials
Juan Massana, M.D.

NR449 Differential Creativity Assessments in Patients with Bipolar Disorder
Claudia M. Santosa, M.A., Nadia Sachs, M.Eng., Connie M. Strong, M.S., Mirene C. Winsberg, M.D., Terence A. Ketter, M.D.

NR450 MRI Changes and Depression in the Cardiovascular Health Study
David C. Steffens, M.D., Michael J. Helms, B.S., K. Ranga R. Krishnan, M.D., Gregory R. Burke

NR451 Safety and Efficacy of Oral Loading Divalproex Sodium in Acutely Manic Bipolar Patients
Paul E. Keck, Jr., M.D., Jeanne Martin, James H. Thomas, M.D., Michael H. Allen, M.D., Robert M.A. Hirschfeld, M.D., K.W. Sommerville, M.D.

NR452 Absence of Attentional Deficits in Stabilized Bipolar Youth: The Role of Symptom Severity and Phase Specificity
Heather A. Robertson, M.A., Neera Datta, M.A., Diane C. Bird, B.Sc., Stanley P. Kutcher, M.D.

NR453 Changes in Weight During a One-Year Trial with Fluoxetine
David Michelson, M.D., Jay D. Amsterdam, M.D., Yongman Kim, Ph.D., Karen Sundell, B.S.

NR454 Relationship Between Mood Disturbance in Schizophrenia and Quality of Life
Scott W. Andersen, M.S., Gary D. Tollefson, M.D.

NR455 The Study of Olanzapine Plus Fluoxetine in Treatment-Resistant MDD Without Psychotic Features
Gary D. Tollefson, M.D., Richard C. Shelton, M.D., Mauricio F. Tohen, M.D., Stephen M. Stahl, M.D., Thomas Jacobs, MAS, Kimberley S. Gannon, Ph.D.

NR456 Quetiapine Fumarate in Neuroleptic-Dependent Mood Disorders
Martha Sajatovic, M.D., Debra W. Brescan, M.D., Dalia Perez, M.D., Sue Digiovani, M.D., Helen G. Hattab, M.D.

NR457 A Comparison of Bupropion SR, Sertraline and Placebo in Depressed Outpatients
Harry A. Croft, M.D., John A. Ascher, M.D., Sharyn Batey, Pharm.D., Trisha Houser, B.A., Refe Donahue, Ph.D.

NR458 National Depressive and Manic-Depressive Association's Groups Increase Compliance Among Patients
Lisa C. Goodale, L.S.W., Lydia Lewis

NR459 Efficacy and Safety of Risperidone in Bipolar Disorders
Eduard Vieta, M.D., Marisa Herraiz, M.D., Antonio Fernandez, M.D.

NR460 Personality Disorders in Bipolar II Patients
Francesc Colom, Ph.D., Eduard Vieta, M.D., Anabel Martinez-Aran, Ph.D., Maria Reinares, Ph.D., Antonio Benabarre, M.D., Cristobal Gasto, M.D.

NR461 Sertraline in Depressed Patients Resistant and/or Intolerant to a Previous Treatment
Julien-Daniel Guelfi, M.D., Sylvie Troy

NR462 Pharmacological Hypomania/Mania in Unipolar Affective Disorders
Carlos Lopez Conesa, M.D., Teresa Rodellar, M.D., Anna Torras, M.D., Diego J. Palao, M.D., Maite Bel, Ph.D., Vicente Fabregat, M.D., Myriam Cavero, M.D.

NR463 A Double-Blind Study with Paroxetine and Imipramine
Alfonso Ontiveros, M.D., Javier Lugoleos, M.D.

NR464 Reboxetine, the First Selective Noradrenaline Reuptake Inhibitor, Is More Effective at Improving Social Functioning than Fluoxetine
Hansjurgen Moller, M.D.

NR465 Postpartum Depression: Distinct Entity or Coincidence?
Amy Hostetter, B.A., Claudia L. Baugh, B.A., Zachary N. Stowe, M.D.

NR466 Rapid Onset of Therapeutic Action in Major Depression: A Comparative Trial of Mirtazapine and Paroxetine
Otto Benkert, M.D., Armin Szegedi, M.D., Ralph Kohnen, Ph.D., Albert-Jan Schutte, M.D.

NR467 Serotonin Transporter Regulation in an h-Serotonin Transporter-Expressing Neurosa Culture: Effects of Substrate and Inhibitors
Karley Y. Little, M.D., Lian Zhang, Ph.D., Huailing Zhong, Ph.D.

NR468 Pretreatment Anxiety Does Not Predict Response to Bupropion Sustained Release or Sertraline
A. John Rush, M.D., Sharyn Batey, Pharm.D., Refe Donahue, Ph.D., John A. Ascher, M.D., Tom Carmody, Ph.D.

NR469 Medication Prescribing Patterns in Adult and Geriatric Psychiatric Inpatients with a Primary Diagnosis of Bipolar Disorder
William S. Edell, Ph.D., Sandra L. Tunis, Ph.D., Kristina L. Greenwood, Ph.D., Prudence Z. Lim, M.P.H.

NR470 Appropriate Use of SSRIs: Diagnosis and Dose at Time of Initial Use
Danielle L. Loosbrock, M.H.A., Rebecca L. Robinson, M.S., Molly E. Tomlin, M.S., Thomas W. Croghan, M.D.

NR471 DHEA-S and Depression During Ovarian Suppression
C.R. Parker, Jr., Ph.D., Julia K. Warnock, M.D., J. Clark Bundren, M.D., David W. Morris, M.A.

NR472 Predictors of an Acute Antidepressant Response to Fluoxetine and Sertraline
Martine F. Flament, M.D., Roger M. Lane, M.D., Ying Zhiliang

NR473 Controlled Release and Immediate Response: Brain Lithium Levels and Adverse Effects
Christina M. Demopulos, M.D., Constance Moore, M.D., Perry F. Renshaw, M.D., Sharon H. Rackow, B.A., Gary S. Sachs, M.D.

NR474 Evaluating the Cornell Dysthymia Rating Scale in a Population of 116 Dysthymic Outpatients
Sarai Batchelder, Ph.D., Margarita Borisovskaya, B.A., David J. Hellerstein, M.D., Agnes Lee, B.A.

NR475 Comorbidity, Social Support and Major Depression
Christine E. Ryan, Ph.D., Gabor I. Keitner, M.D., Michael D. Stein, M.D., David A. Solomon, M.D.

NR476 Efficacy and Tolerability of Mirtazapine Versus Citalopram in Major Depression: A Double-Blind, Randomized Study
Hans Agren, Ph.D., Esa Leinonen, M.D., Jon Skarstein, M.D., Kerstin Behke, M.D., Albert-Jan Schutte, M.D.

NR477 Topiramate in Rapid-Cycling Bipolar Women
Vivek Kusumakar, M.D., Lakshmi N. Yatham, M.B., Claire M. O'Donovan, M.D., Stanley P. Kutcher, M.D.

NR478 Switching to Mirtazapine in Everyday Clinical Practice: A Naturalistic Study in the Netherlands
Anthony Boumans, Albert-Jan Schutte, M.D., Hans den Boer, M.D.

NR479 Switching to Mirtazapine from SSRIs in Everyday Clinical Practice: A Naturalistic Study in the Netherlands
Hans den Boer, M.D., Albert-Jan Schutte, M.D., Anthony Boumans

NR480 Psychosocial and Personality Outcomes in Major Depression: Results of a Six-Month, Double-Blind Comparison of Sertraline and Paroxetine
Anna Aberg-Wistedt, Hans Agren, Ph.D., Roger M. Lane, M.D.

NR481 Trial to Identify and Treat Early Relapse in Bipolar Disorder
Richard K. Morriss, M.D., Alison Perry, B.Sc., Nicholas Tarrier, Ph.D., Eilis McCarthy, B.Sc., Kate Limb, B.Sc.

NR482 Follow-Up of a First Admission Affective Disorders Cohort: Predictors of Rehospitalization Over 12 Years
Karen L. Swartz, M.D., Gail L. Ullrich, M.S.W., John A. McGrath, M.A., Melissa Carswell, M.A., Paula S. Wolyniec, M.A., Krista D'Aiello, M.S.W., Anne E. Pulver, Sc.D.

NR483 Defensive Style and Affect in Bipolar Disorder
Joyce E. Whiteside, B.A., Joseph F. Goldberg, M.D., Martin A. Goldstein, M.D., Tara M. Singer, M.A., Linda S. Mullen, M.D., Steven P. Roose, M.D., Carrie J. Endick, B.A.

NR484 Efficacy and Tolerability of Venlafaxine and Paroxetine in Outpatients with Mild to Moderate Depression or Dysthymia
Dr. Yolanda Riesgo, Professor Carlos Ballus, Dr. Gonzalez Quiros, Dr. Tomas De Flores, Dr. Jaime De La Torre, Diego J. Palao, M.D., Dr. Luis Rojo

NR485 The Relationship Between Personality and Neuropsychological Functioning in Male Pedophiles
Lisa J. Cohen, Ph.D., Igor I. Galynker, M.D., Ken Cullen, C.S.W., Olga Poznansky, B.A., Sniezyna Watras-Gans, Ph.D., Sean Murphy, B.A., Marrina Moshkovich, M.D.

NR486 Low Dopamine D2 Receptor Binding in Social Phobia
Franklin R. Schneier, M.D., Michael R. Liebowitz, M.D., Anissa Abi-Dargham, M.D., Yolanda Zea-Ponce, Ph.D., Shu-Hsing Lin, Ph.D., Marc Laruelle, M.D.

NR487 A Case-Controlled Study of 75 Virgin Sex Offenders
Kathy Smolewska, J. Paul Fedoroff, M.D., Beverly Moran, B.Sc.

NR488 Frontal Lobe Related Cognitive Functions and Impulsivity in Pedophilic Men
Igor I. Galynker, M.D., Lisa J. Cohen, Ph.D., Olga Poznansky, B.A., Marrina Moshkovich, M.D., Sean Murphy, B.A., Sniezyna Watras-Gans, Ph.D., Ken Kullen, C.S.W.

NR489 The Prognostic Significance of Hospitalized Depression in Primary Invasive Breast Cancer: A Nationwide Cohort Study in Denmark
Karen Hjerl, M.D.

NR490 Influence of Meteorological Factors in Patients with Migraines
Galina Mindlin, M.D., Ashwin A. Patkar, M.D., Olga Kolosova, M.D.

NR491 PTSD and Nonadherence in Pediatric Liver Transplant Patients
Eyal Shemesh, M.D., Benjamin L. Shneider, M.D., Margaret L. Stuber, M.D., Pankaj Vohra, M.D., Marie Aromando, R.N., Sukru Emre, M.D., Susan Lurie, M.D.

NR492 Are Living Related Donors Psychologically Healthy?
Aysin Noyan Kayan, M.D., Hayriye Elbi, M.D., Zeki Yuncu, M.D., Demet Gulpek, M.D., Birgul Aydin, Ph.D., Abdulkadir Unsal, M.D., Ercan Ok, M.D.

NR493 Impact of Depression on Functional Status in Congestive Heart Failure
Christine E. Skotzko, M.D., Cathy Krichten, C.N.P., Gretchen Zietowski, Lynette Alves, Michael A. Fisher, M.D., Stephen Gottieb, M.D.

NR494 Relationship Between Psychopathology and Gastric Physiological Activity of Non-Ulcer Dyspepsia
Sang-Yeol Lee, M.D., Min-Cheol Park, M.D., Susan E. Abbey, M.D., Gary M. Rodin, M.D., Suk-Chei Choi, M.D., Yong-Ho Nah, M.D.

NR495 TB Exposure in the Psychiatric Emergency Service
Glenn W. Currier, M.D.

NR496 Intelligence and Reading Ability of Patients at a Psychiatric Walk-In Service
Glenn W. Currier, M.D., Robert Sitzman, Ph.D.

NR497 Psychosocial Training in U.S. Internal Medicine and Family Practice Residency Training Programs
Elizabeth H. Gaufberg, M.D., Robert C. Joseph, M.D., Richard J. Pels, M.D., Carol C. Nadelson, M.D., Dow Wieman, Ph.D., Aditi Mehta

NR498 Initiating Paroxetine for Panic Disorder During Emergency Department Chest Pain Evaluations
Lawson R. Wulsin, M.D., Shelley Evans, M.Ed., Tiepu Liu, Ph.D., Naakesh A. Dewan, M.D., Alan Storrow, M.D., Catherine Hamilton, M.P.H., Theresa Shireman, Ph.D.

NR499 Police Response to Tarasoff Warning in South Carolina and Michigan
Lawrence A. Labbate, M.D., Richard Balon, M.D., Michael G. Huber, M.D., Shari Brandt-Youtz, B.A., Rizwan M. Mufti, M.D., Jill Hayes, Ph.D.

NR500 Sexual Predator Records Review: Juveniles Characteristics
Geoffrey R. McKee, Ph.D., Stephen M. Soltys, M.D., Scott Wowra, B.A.

NR501 The Clinical Impact of Doing Time
Merrill R. Rotter, M.D., Stefan Larkin, Ed.D., Michael Steinbacher, M.A., Jackie Massaro, C.S.W., Mitchell Schare, Ph.D.

NR502 The Mentally Ill Offender in the Civil Hospital: Distinguishing Features
Merrill R. Rotter, M.D., Stefan Larkin, Ed.D., Michael Steinbacher, M.A., Jackie Massaro, C.S.W., Mitchell Schare, Ph.D.

NR503 Hired Guns and Whores: A Computer Case Law Survey
Douglas Mossman, M.D.

NR504 Court-Ordered Psychotropic Medications in Southern Illinois: Eight Years of Data
Jagannathan Srinivasaraghavan, M.D., Nancy Watkins, B.S.

NR505 A Case Example Utilizing Practical Methods for Detecting Mendacity
Alan R. Hirsch, M.D., Charles J. Wolf, B.S.

NR506 Comparison of Atypical Agents and Haloperidol in Nursing Home Patients
I. Barton Frenchman, R.Ph., Angela Capo, R.N., Maria Pieniro, R.N., Sandy Stenstrom, R.N., Antonio Onday, R.N.

NR507 Acute ECT Response: Findings from the Consortium for Research in ECT Trial
Charles H. Kellner, M.D., Rebecca Knapp, Ph.D., Hilary Bernstein, L.S.W., Teresa A. Rummans, M.D., Mustafa M. Husain, M.D., Georgios Petrides, M.D., Mark D. Beale, M.D., Wenle Zhao, M.S., A. John Rush, M.D., Max Fink, M.D.

NEW RESEARCH

Wednesday, May 19, 1999, 3:00 p.m.-5:00 p.m.

New Research 12 – Poster Session – Hall D, Lower Level, Convention Center

HEALTH SERVICES AND VARIOUS PSYCHIATRIC DISORDERS

Moderator: Susan J. Fiester, M.D.

NR508 The Association Between Geographic Origin and Health Services Utilization in a Sample from Intensive Outpatient Treatment
Joseph A. Flaherty, M.D., Thomas M. Brady, M.P.H., Bernard H. Baum, Ph.D.

NR509 Welfare Reform Policies and Substance Abuse Treatment: One Program's Experience
Joseph A. Flaherty, M.D., Thomas M. Brady, M.P.H., Bernard H. Baum, Ph.D., Dorothy Thomas, C.A.D.C.

NR510 The Effect of Comorbid Anxiety on Depression Management in Current Psychiatric Practice
Bradley N. Gaynes, M.D., Kathryn M. Magruder, Ph.D., Harold Alan Pincus, M.D., Terri L. Tanielian, M.A., Deborah A. Zarin, M.D., Ivan D. Montoya, M.D.

NR511 The Impact of Depressive Symptoms on Health Status in Patients with Chronic Obstructive Pulmonary Disease
Bradford L. Felker, M.D., Jennifer Rasmussan, M.P.H., Mary B. McDonnell, M.S., Stephan D. Fihn, M.D., Susan Hedrick, Ph.D., Wayne J. Katon, M.D.

NR512 Assessing the Referral Interface Between Psychiatry and Primary Care
Terri L. Tanielian, M.A., Harold Alan Pincus, M.D., Eve M. Kupersanin, B.A., Allen J. Dietrich, M.D., John A. Williams, M.D., Thomas E. Oxman, M.D., Paul Nutting, M.D.

NR513 Characteristics of Referrals to Psychiatrists from Non-Psychiatric Physicians
Terri L. Tanielian, M.A., Harold Alan Pincus, M.D., Heather L. Cohen, B.A.

NR514 Barriers to Treatment in Social Anxiety
Mark Olfson, M.D., Mary T. Guardino

NR515 Annual Health Care Expenditures and Compliance with Antidepressant Treatment in a Managed Care Organization
Andrew M. Baker, M.P.A., James M. Russell, M.D., Amy N. Grudzinski, Pharm.D., Salvatore V. Colucci, M.S.

NR516 Understanding Primary Care Patient Preferences for Depression Treatment
Megan Dwight-Johnson, M.D., Catherine D. Sherbourne, Ph.D., Tyrone L. Harvey, M.A., Kenneth B. Wells, M.D.

NR517 Changes in Mood and Quality of Life During Sertraline Treatment of Depression in Patients with Type 2 Diabetes
Patrick J. Lustman, Ph.D., Kenneth E. Freedland, Ph.D., Linda S. Griffith, M.S.W., Candace R. Miller, M.A., Linda D. Barnes, C.M.A., Eugene H. Rubin, M.D., Ray E. Clouse, M.D.

NR518 The Revolving Door Phenomenon in a Public Psychiatric Hospital in Mexico City
Francisco Paez, M.D., Vicky Perez, B.A., Ileana Lopez, Rogelio Apiquian, M.D., Humberto Nicolini, Ph.D.

NR519 Homelessness and Psychiatric Hospitalization
Lawrence Appleby, Ph.D.,J.D., Daniel J. Luchins, M.D., Nancy B. Slagg, Ph.D., Doug Burman, Ph.D., Prakash N. Desai, M.D.

NR520 Dissemination of Family Psychoeducation: The Importance of Consensus Building
Lisa B. Dixon, M.D., William R. McFarlane, M.D., Helaine Hornby, M.A., Scot W. McNary, M.A.

NR521 Analysis of Risperidone Costs in the Veterans' Administration
Enrico G. Camara, M.D., James T. Miyashiro, M.A., Leonard K.M. Wong, Amy Grogg, Pharm.D., Steven R. Arikian, M.D., Ron Corey, Ph.D.

NR522 Validity of the 1990 APA ECT Task Force Recommendations
James R. Westphal, M.D.

NR523 Making Valid Inferences from Claims Data: A Comparison of SSRI Treatment Costs
James M. Russell, M.D., Ernst R. Berndt, Ph.D., Robert J. Miceli, Ph.D., Salvatore V. Colucci, M.S., Amy N. Grudzinski, Pharm.D.

NR524 Children in Foster Care: Access to Care
Bonnie T. Zima, M.D., Regina Bussing, M.D., Xiaowei Yang, Ph.D., Thomas R. Belin, Ph.D., Madeleine Zwart, B.A.

NR525 Beta-Amyloid, Oxidative Stress and Alzheimer's Disease
Anne C. Andorn, M.D.

NR526 Primary Versus Subspecialty Care: A Structured Follow-Up of Dementia Patients and Their Caregivers
Peter M. Aupperle, M.D., Andrew C. Coyne, Ph.D.

NR527 Hopeless Feeling and All-Cause Mortality in Older Mexican and European- American Community Residents
Stephen L. Stern, M.D., Rahul Dhanda, Ph.D., David V. Espino, M.D., Michael J. Lichtenstein, M.D., Helen P. Hazuda, Ph.D.

NR528 Cerebrovascular Risk Factors and One-Year Depression Outcome in Older Primary Care Patients
Jeffrey M. Lyness, M.D., Eric D. Caine, M.D., Deborah A. King, Ph.D., Christopher Cox, Ph.D., Yeates Conwell, M.D.

NR529 Identifying Families with Likely Genetic Protective Factors Against Alzheimer's Disease
Jeremy M. Silverman, Ph.D., Christopher J. Smith, B.S., Deborah B. Marin, M.D., Sandra Birstein, Marlene Mare, Richard Mohs, Ph.D., Kenneth L. Davis, M.D.

NR530 Estrogen and Noncognitive Psychiatric Symptoms in Elderly Patients with Moderate to Severe Dementia
Helen H. Kyomen, M.D., John Hennen, Ph.D., Andrew Satlin, M.D., Jeanne Y. Wei, M.D.

NR531 Colostrinin: New Treatment Perspectives of Alzheimer's Disease
Jerzy W. Leszek, M.D., Professor Anna D. Inglot, Professor Jozef Lisowski, Professor Maria Janusz, Professor Andrej Kieima, Professor Jerry A. Georgiades

NR532 Relapse and Recurrence in Geriatric Depression
Alastair J. Flint, M.B., Sandra L. Rifat, Ph.D.

NR533 Antidepressant Use and Suicide in the Elderly
Alastair J. Flint, M.B., Jose M. Silveira, M.D., Anne Rhodes, M.Sc., Ron Heslegrave, Ph.D., Paul S. Links, M.D.

NR534 Continuation Treatment of Geriatric Psychotic Depression
Barnett S. Meyers, M.D., George S. Alexopoulos, M.D., Tatsu Kakuma, Ph.D., Michelle Gabriele, M.S.W., Fughik Tirumalasetti, M.D., Mimi Hamilton, Ph.D.

NR535 Double-Blind Dehydroepiandrosterone Treatment of Alzheimer's Disease
Owen M. Wolkowitz, M.D., Joel H. Kramer, Psy.D., Victor I. Reus, M.D., Martin E. Costa, Ph.D., Kristine Yaffe, M.D., Pamela Walton, M.S., Murray A. Raskind, M.D., Elaine Peskind, M.D., Paul A. Newhouse, M.D., David A. Sack, M.D., Carl Sadowsky, M.D., Errol B. De Souza, Ph.D., Eugene Roberts, DHEA-Alzheimer's Dis Collab. Research Group

NR536 Characteristics of Older Americans Reporting a History of Psychiatric Disorder: Medicare Current Beneficiary Survey, 1996
Daniel P. Chapman, Ph.D., Donald K. Blackman, Ph.D., Laurie A. Kamimoto, M.D.

NR537 Psychiatric Comorbidities of Elderly Patients in Nursing Homes
Melinda S. Lantz, M.D., Eric N. Buchalter, D.O.

NR538 Rivastigmine Slows Stage-Specific-Global Deterioration in Alzheimer's Disease
K. Ranga R. Krishnan, M.D., P. Murali Doraiswamy, M.D., Jeff Veach, M.S.

NR539 Effects of Mirtazepine on Depression and Weight in Very Elderly Patients
Ben Zimmer, M.D., Victor G. Stiebel, M.D., Robert T. Rubin, M.D.

NR540 The Relationship Between Mental Illness, Self-Perceived Health and Social Conditions: The Galicia Survey of Mental Health of the Elderly
Raimundo Mateos, Maria C. Garcia, Ph.D., Beatriz Camporro, M.D., Mario Paramo, Ph.D., Maria C. Carollo, Ph.D., Antonio Rodriguez-Lopez, Ph.D.

NR541 Unrecognized Dementia in Geriatric Patients
Felipe Sandoval, M.D., Alfonso Ontiveros, M.D., Magdaleno Perez, M.D.

NR542 Clinical Improvement and Tolerability Is Maintained Long-Term in Elderly Patients with Psychotic Disorders Treated with Quetiapine
Pierre N. Tariot, M.D., Carl Salzman, M.D., Paul P. Yeung, M.D., Joseph Pultz, Ph.D., Joher Raniwalla, M.D.

NR543 Psychiatric Disorders in Patients with Blepharospasm: A Reactive Pattern?
Griengl Hemma, M.D., Thomas Wenzel, M.D., Peter Schnider, M.D.

NR544 Prescription Patterns of Older and Newer Antidepressants for Geriatric Depressive Outpatients
Luis Aguera-Ortiz, M.D., Silvia Gonzalez-Parra, M.D., Remedios Sanchez-Piedra, M.D.

NR545 Hypotension, MR Hyperintensities and Depression in Older Hypertensives: A Pilot Study
Blaine S. Greenwald, M.D., Elisse Kramer-Ginsberg, Ph.D., Heino Anto, M.D., Manzar Ashtari, Ph.D., K. Ranga R. Krishnan, M.D., Paul Samuel, M.D., Mahendra C. Patel, M.D.

NR546 Risperidone Versus Olanzapine in the Treatment of Patients with Schizophrenia or Schizoaffective Disorder
Robert R. Conley, M.D., Martin B. Brecher, M.D., Risperidone/Olanzapine Study Group

NR547 The Impact of Caregiver Distress of Donepezil Treatment of Patients with Mild Alzheimer's Disease
Philippe H. Robert, M.D., Florence Lebert, M.D., Sylvia Goni, M.D., Jacques Touchon, M.D.

NR548 A Comparative Analysis of Risperidone and Olanzapine Dosing Patterns in the South Carolina Medicaid Program
Chris M. Kozma, Ph.D., S.H. Mody, Pharm.D., M.K. Sadik, Ph.D.

NR549 Dosing Trends and Associated Schizophrenia-Related Health Care Costs from a State Medicaid Perspective: Risperidone Versus Olanzapine
Brian Nightengale, Ph.D., John M. Crumly, R.Ph., Susan J. Kernodle, Ph.D., Elgene W. Jacobs, Ph.D.

NR550 Symptoms Commonly Attributed to Prolactin: A New Assessment Tool and Findings from a Trial of Risperidone Versus Olanzapine
Ramy A. Mahmoud, M.D., Luella M. Engelhart, M.S., C. Janagap, M.S., J. Dogherty, M.D.

NR551 Patients Switched from Depot Antipsychotics to Oral Risperidone or Olanzapine: An Open-Label Randomized Trial
Kimberly H. Littrell, A.P.R.N.

NR552 A Pilot Study of Cognitive Therapy for Bipolar Disorder
Ari E. Zaretsky, M.D., Zindel V. Segal, Ph.D., Michael Gemar, Ph.D.

NR553 Cognitive-Behavior Therapy for Non-Cardiac Chest Pain
Philip Spinhoven, Ph.D., Anke S. Van Peski-Oosterbaan, Ph.D., Jan-Willem Van der Does, Ph.D., Yanda Van Rood, Ph.D., Harry G. Rooijmans, Ph.D., Albert V.G. Bruschke, Ph.D.

NR554 Risperidone Versus Olanzapine: Discharge Rates and Economic Considerations
Deanna L. Kelly, Pharm.D., Matthew W. Nelson, Pharm.D., Raymond C. Love, Pharm.D., Robert R. Conley, M.D.

NR555 Identifying Early Response to Treatment with Anti-Dementia Drugs
Stephen Curran

NR556 AIDS Mania: Evidence for Right Frontal Dysfunction
Hillel T. Grossman, M.D., David A. Gansler, Ph.D., Arletta Cioffari, M.A., Nancy Moczynski, Ph.D., Brian Winkloski, M.A., Rochelle Scheib, M.D., Marshal F. Folstein, M.D.

NR557 Progression to AIDS: The Effects of Stress, Depression, Social Support and Denial
Jane Leserman, Ph.D., Hongbin Gu, B.A., Susan G. Silva, Ph.D., Bradley N. Gaynes, M.D., Paula I. Anderson, B.A., Dwight L. Evans, M.D., Robert N. Golden, M.D.

NR558 AIDS Sexual Risk Behaviors Among Addicts in Brazil
Dartiu X. Da Silveira, Ph.D., Evelyn D. Silveira

NR559 Mental Health and Quality of Life Correlates in HIV Infection
Cheryl A. Kennedy, M.D., Bart Holland, Ph.D., Louise Phillips, M.D., Shilpa Pai, B.S.

NR560 Incestuous Rape and Dissociative Disorders
Jean-Michel Darves-Bornoz, M.D., Andree Degiovanni, M.D., Philippe Gaillard, M.D.

NR561 Correlation Between Cognitive Effects and Level of Acetylcholinesterase Inhibition in a Trial of Rivastigmine in Patient's with Alzheimer's Disease
Jerome F. Costa, M.D., Ravi Anand, M.D., Neal R. Cutler, M.D., Richard Hartman, Ph.D., Linda Mancione, John J. Sramek, Pharm.D., Amy Veroff, Ph.D.

NR562 Olanzapine in the Treatment of Psychosis and Behavioral Disturbances Associated with Alzheimer's Disease
Jamie S. Street, M.D., W. Scott Clark, Ph.D., Kimberley S. Gannon, Ph.D., Steve Mitan, M.S., Todd M. Sanger, Ph.D., Gary D. Tollefson, M.D.

NR563 Rivastigmine Improves Behavior and Reduces Tranquilizer Use
Keith R. Edwards, M.D., William A. Goodman, Psy.D., Richard Hartman, Ph.D.

NR564 Lack of Significant Drug-Drug Interactions with the Acetylcholinesterase Inhibitor Rivastigmine in Patients with Alzheimer's Disease
George T. Grossberg, M.D., Stephen Graham, Ph.D.

NR565 Fluoxetine's Efficacy in Improving Mood, Physical and Social Impairment Symptoms Associated with Premenstrual Dysphoric Disorder
Peter J. Schmidt, M.D., Steven J. Romano, M.D., Mary E. Nilsson, M.S., Eileen Brown, Ph.D., Cathy Shuler

NR566 Serotonin-Induced Allopregnanolone Levels in Women with PMS
Natalia L. Rasgon, M.D., Giovanni Biggio, M.D., Mariangela Serra, Ph.D., Andrea Rapkin, M.D.

NR567 Impact of Premenstrual Symptoms on Functioning and Treatment Seeking: Experience from the United States, United Kingdom and France
Timothy R. Hylan, Ph.D., Karen Sundell, B.S., Rajinder A. Judge, M.D.

NR568 Comparing Fluoxetine's Efficacy in Premenstrual Dysphoric Disorder Symptoms
Eileen Brown, Ph.D., Steven J. Romano, M.D., Teri B. Pearlstein, M.D., Peter J. Schmidt, M.D., Meir Steiner, M.D.

NR569 Fluoxetine's Efficacy in Improving Premenstrual Dysphoric Disorder
Meir Steiner, M.D., Steven J. Romano, M.D., Susan Babcock, M.S., Susan D. McCray, Julia Dillon, Pharm.D.

NR570 Sertraline Treatment of Premenstrual Dysphoric Disorder: A Review of Controlled Literature
Kimberly A. Yonkers, M.D., Ellen W. Freeman, Ph.D., C. Neill Epperson, M.D., Donna M. Jermain, Ph.D., Uriel Halbreich, M.D., Richard L. O'Sullivan, M.D.

NR571 Strategies of Shared Mental Health Care Implementation Between General Practitioners and Psychiatrists
Ricardo J.M. Lucena, M.D., Alain D. Lesage, M.D., Claude Beaudoin, M.D., Jean Maren

NR572 Cognitive Variables Influencing Compliance in a Post-Discharge Population
Geetha Jayaram, M.D., Manjula Ramareddy, M.A.

NR573 Needs of People with Schizophrenia in Barcelona
Josep Haro, M.D., Manuel M. Marquez, M.D., Enric Vicens, M.D., Susana Araya, M.D., Susana Ochoa, B.Sc., Jaume Autonell, M.D., Josep Ramos, M.D.

NR574 Crisis Help Line: Road Towards Preventive Psychiatry
Amresh Shrivastava Kumar, M.D., Gopa Sakel, M.A., Sunita Iyer, M.A., Chitra Kelkar, M.A., Sangeeta Rao, M.A.

NR575 Ethnic Differences in Outcome of Schizophrenia
Harold F. Doyle, M.B., Rod Holland, M.Sc.

NR576 Delinquency and Marijuana Use in Colombian Youth
David W. Brook, M.D., Judith S. Brook, Ed.D.

NR577 Prevalence of Psychiatric Disorders Among Native Hawaiian and Non-Hawaiian Adolescents in Hawaii
Linda B. Nahulu, M.D., Noelle Y.C. Yuen, M.D., George K. Makini, Jr., M.D., Earl Hishinuma, Ph.D., Robin Miyamoto, Ph.D.

NR578 Acculturation and Disordered Eating in Fiji
Anne E. Becker, M.D., Rebecca A. Burwell, B.A.

NR579 Ethnic Variance in the Treatment of Acute Mania
Dale A. D'Mello, M.D., David E. Lyon, B.S.

NR580 Cultural Factors and Mental Health of College Athletes
Barney E. Miller, Ph.D., Merry N. Miller, M.D., Susan Hosler, Ruth Verhegge, R.D., Curtis D. Kauffmann, M.D., Herbert Vance, Ph.D., Andres J. Pumariega, M.D.

NR581 Depression and the Risk of Alzheimer's Disease
Miriam I. Geerlings, M.Sc., Robert A. Schoevers, M.D., Aartjan T.F. Beekman, Ph.D., Cees Jonker, Ph.D., Ben Schmand, Ph.D., Lex M. Bouter, Ph.D., Willem Van Tilburg, M.D.

NR582 Epidemiology of Nosocomial Infections in a Representative Israeli Psychiatric Hospital
Alex Aviv, M.D., Adi Enoch-Levy, M.D., Yoram Barak, M.D., Robert Kimhi, M.D., Avner Elizur, M.D.

NR583 Survey of American Medical Association and National Medical Association Members: Blood Pressure Levels
F.M. Baker, M.D., Earl Hishinuma, Ph.D.

NR584 SSRI Effect on Seizure Parameters in ECT
Yiannis G. Papakostas, M.D., Manolis Markianos, Ph.D., Iannis M. Zervas, M.D., Maria Theodoropoulou, M.D., Michael Daras, M.D., Nicholas Vaidakis, M.D.

NR585 ECT in Schizophrenia

Worrawat Chanpattana, M.D., Somchai Chakrabhand, M.D., Harold A. Sackeim, Ph.D., Pisarn Techakasem, M.D.

NR586 Two Different Subtypes of Pain Disorders in DSM-IV
Martin Aigner, M.D., Bettina Bankier, M.D., Anna Spacek, M.D., Sandra Krones, Michael Bach, M.D.

NR587 Bupropion SR with Phentermine for Weight Reduction
Paul S. Bradley, Ray R. Maddox, P.H.R., Wanda K. North, B.S.N.

NR588 Risk for Eating Disorders in an Athletic Program
Andres J. Pumariega, M.D., Merry N. Miller, M.D., Barney E. Miller, Ph.D., Ruth Verheege, R.D., Herbert Vance, Ph.D., Susan Hostler, Curtis D. Kauffmann, M.D.

NR589 Decreased Platelet MAO Activity in Female Anorexia Nervosa
Marina Diaz-Marsa, M.D., Jose Luis Carrasco, M.D., Eric Hollander, M.D., Jesus Cesar, M.D., Jeronimo Saiz-Ruiz, M.D.

NR590 Antidepressants for Bulimia Nervosa
Josue Bacaltchuk, M.D., Phillipa Hay, M.D., Roberta P. Trefiglio, Pharm.D., Jair De Jesus Mari, M.D.

NR591 Fluoxetine in Bulimia Following Failure of Psychotherapy
B. Timothy Walsh, M.D., W. Stewart Agras, M.D., Michael J. Devlin, M.D., Caroline Kahn, Kristin Chally

NR592 Decreased Platelet MAO Activity in Female Bulimia Nervosa
Jose Luis Carrasco, M.D., Marina Diaz-Marsa, M.D., Eric Hollander, M.D., Jesus Cesar, M.D., Jeronimo Saiz-Ruiz, M.D.

NR593 Defining Standard Care for Anorexia Nervosa: What the Consumer Seeks Out
Sophie Grigoriadis, M.D., Allan S. Kaplan, M.D., Jacqui Carter, Ph.D., D. Blake Woodside, M.D.

NR594 PTSD Following Prolonged Surgical Intensive Care Unit Treatment
Frank G. Pajonk, M.D., Jens C. Richter, M.D., Christian Waydhas, M.D.

NR595 Efficacy of Sildenafil Citrate in Men Taking SSRIs
H. George Nurnberg, M.D., Alan J. Gelenberg, M.D., Tim B. Hargreave, M.D., Mike D. Smith, Ph.D., Richard L. Siegel, M.D.

NR596 Comparing Adderall Methylphenidate in ADHD
Steven R. Pliszka, M.D., Ronald G. Browne, Ph.D., Susan K. Wynne, M.D., Rene L. Olvera, M.D.

NR597 Mirtazapine in the Treatment of Irritable Bowel Syndrome: A Pilot Study
Lars Tanum, M.D., N. Moe, M.D.

NR598 Sildenafil Citrate for Erectile Dysfunction and Depression
Raymond Rosen, Ph.D., Ridwan Shabsigh, M.D., Matthew A. Menza, M.D., Steven P. Roose, M.D., Stuart N. Seidman, M.D., Vera Stecher, M.D., Diane M. Chow

NR599 Divalproex for Agitated and Aggressive Brain Injury Symptoms
Peggy E. Chatham-Showalter, M.D., Deborah N. Kimmel, M.D.

NR600 Long-Term Outcome and Its Predictors of Bipolar Disorder
Shang Ying Tsai, M.D., Chian-Jue Kuo, M.D., Chiao-Chicy Chen, M.D., Ju-Chin Lee, M.D., Eng-Kung Yeh, M.D.

NR601 The Meta-Analysis of the Efficacy of Pharmacotherapy and Psychotherapy for PTSD
Ashley D. Wazana, M.D., Marta Valenzuela, Ph.D., J. Christopher Perry, M.D.

NR602 Computer-Assisted Self-Help Versus Clinician-Administered Behavior Therapy for OCD: A Multicenter, Randomized, Controlled Trial
John H. Greist, M.D., Isaac M. Marks, M.D., Lee Baer, Ph.D., J. Richard Parkin, M.B., Peter A. Manzo, M.S.W., Julia M. Mantle, R.N., Kenneth A. Kobak, Ph.D.

NR603 Treatment of Depression in a Women's Primary Care Clinic
Lee S. Cohen, M.D., Hadine Joffe, M.D., Bernadette Sweeney, B.S., Heather Groninger, B.A., Karen Carlson, M.D., Jerrold F. Rosenbaum, M.D.

NR604 Cost-Effectiveness of Hospital and Crisis Residential Care
Wayne S. Fenton, M.D., Loren R. Mosher, M.D., J. Hoch, M.A., Lisa B. Dixon, M.D.

NR605 Efficacy and Fiscal Impact of Atypical Antipsychotics in County-Wide Outpatient Managed Care Services
Douglas Del Paggio, Pharm.D., Richard P. Singer, M.D.

NR606 A Negative Association of Neurotensin Receptor Gene's Polymorphism with Schizophrenia
Yu-Sang Lee, M.D., Hyeong-Bae Kim, M.D., Jin-Hee Han, M.D., Jung-Sik Lee, M.D., Hyeong-Seob Kim, M.D., In-Keun Choi, M.D., Byung-Hwan Yang, M.D.

NR607 New Genetic Variants at 5-HT2B in Alcoholics
Nakao Iwata, M.D., Roger L. Vallejo, Ph.D., Matti Virkkunen, M.D., Jeffrey C. Long, Ph.D., Norio Ozaki, M.D., David S. Goldman, M.D.

NR608 TDT Analysis of HTR1DB Receptor Gene in OCD Trios
Fariba Sam, B.Sc., Margaret A. Richter, M.D., Andrew Paterson, M.B., Karyn E. Hood, M.Ed., James L. Kennedy, M.D.

NEW RESEARCH

Thursday, May 20, 1999, 9:00 a.m.-10:30 a.m.

New Research 13 – Oral/Slide Session – Rooms 23/24, Lower Level, Convention Center

ALCOHOL AND DRUG ABUSE

Chp.: Deborah A. Zarin, M.D.

NR609 Naltrexone Augmentation of Sertraline in Depressed Alcoholics — 9:00 a.m.
Barbara J. Mason, Ph.D., Lauren D. Williams, M.D., Fernando R. Salvato, M.D., Robert B. Cutler, Ph.D., Thomas B. Cooper, M.A., Ray F. Suckow, Ph.D.

NR610 Dual Diagnosis Patients Need Integrated Treatment — 9:15 a.m.
David J. Hellerstein, M.D., Richard N. Rosenthal, M.D., Christian R. Miner, Ph.D.

NR611 Fluoxetine Treatment of Depressed and Non-Depressed Patients with Cocaine Dependence — 9:30 a.m.
Steven L. Batki, M.D., Mark Bradley, Julia Moon, B.A., Kevin Delucchi, Ph.D., Peyton Jacob, Jr., M.D., Reese T. Jones, M.D.

NR612 ADHD and Antisocial Personality Disorder As Independent Predictors of Alcoholism 15 Years Later — 9:45 a.m.
Margaret A. Sullivan, Ph.D., Sunil Chhibber, M.D., Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Donald W. Goodwin, M.D., Joachim Knop, M.D., Per Jensen, M.D.

NR613 Human Ethanol Sensitivity/Insensitivity: Towards a Measurable Phenotype — 10:00 a.m.
Thomas P. Beresford, M.D., Steve Wilson, Robin Corley, Ph.D., John K. Hewitt, Ph.D.

NR614 The Effects of Experimental Cocaine Administration on Subsequent Cocaine Intake in Individuals with Cocaine Dependence — 10:15 a.m.
Sara Krause, B.A., Igor Elman, M.D., Randy L. Gollub, M.D., Hans C. Breiter, M.D., Nikki Gordon, Bruce R. Rosen, M.D., David R. Gastfriend, M.D.

NEW RESEARCH

Thursday, May 20, 1999, 9:00 a.m.-10:30 a.m.

New Research 14 – Oral/Slide Session – Rooms 25/26, Lower Level, Convention Center

VARIOUS PSYCHIATRIC ISSUES

Chp.: Katherine A. Halmi, M.D.

NR615	Psychosocial Issues During Shuttle/Mir Missions Nick A. Kanas, M.D., Vyacheslav Salnitskiy, Ph.D., Ellen Grund, M.S., Vadim Gushin, M.D., Olga Kozerenko, M.D., Alexander Sled, M.S., Daniel S. Weiss, Ph.D., Charles R. Marmar, M.D.	9:00 a.m.
NR616	Who Gets into Clinical Trials? Gabor I. Keitner, M.D., Christine E. Ryan, Ph.D., David A. Solomon, M.D., Ivan W. Miller, Ph.D.	9:15 a.m.
NR617	Missed Initial Visits in a Managed Care Network Myron L. Pulier, M.D., Cherie Castellano, M.A., Donald S. Ciccone, Ph.D., Karen Marcus, M.S.W., Steven J. Schleifer, M.D.	9:30 a.m.
NR618	Weight Gain and Glucose Metabolism with Atypical Antipsychotics Daniel E. Casey, M.D., Peg Shepherd, Ph.D.	9:45 a.m.
NR619	Cognitive-Behavior Therapy and Fluoxetine for Binge Eating Disorder Carlos M. Grilo, Ph.D., Robin Masheb, Ph.D., Robert M. Berman, M.D., Elayne Daniels, Ph.D., Thomas H. McGlashan, M.D., G. Terrence Wilson, Ph.D., George R. Heninger, M.D.	10:00 a.m.
NR620	Urinary AD7C-NTP As a Marker for Alzheimer's Disease Hossein A. Ghanbari, Ph.D., Kasra Ghanbari, Audrey Vasaukas, Anita Mattero, Michael Munzar, M.D.	10:15 a.m.

NEW RESEARCH

Thursday, May 20, 1999, 12 noon-2:00 p.m.

New Research 15 – Poster Session – Hall D, Lower Level, Convention Center

PSYCHOPHARMACOLOGY, BRAIN IMAGING, SLEEP DISORDERS, AND DIAGNOSTIC ISSUES

Moderator: Richard Balon, M.D.

NR621 Potential Cost Savings of Pill-Splitting
Carl I. Cohen, M.D., Sara I. Cohen

NR622 Serotonin Function and Suicidal Behavior
Humberto Correa, M.D., Fabrice Duval, M.D., M. Claude Mokrani, Ph.D., Paul Bailey, M.D., Than Son Diep, M.D., Marc-Antoine Crocq, M.D., Jean-Paul Macher, M.D.

NR623 Donepezil Adjunctive to SSRIs in Obsessive-Compulsive Arrangers: Preliminary Findings
Cary L. Hamlin, M.D.

NR624 Sildenafil Citrate for Antidepressant-Induced Sexual Dysfunction in Female Patients
Paula L. Hensley, M.D., H. George Nurnberg, M.D., John Lauriello, M.D., Lynda M. Parker, M.D., Samuel J. Keith, M.D.

NR625 A Randomized, Controlled Trial of Risperidone for Psychotic Features in PTSD
Mark B. Hamner, M.D., Helen G. Ulmer, C.S.N., Clare Tyson, B.S., B. Christopher Frueh, Ph.D., Michael G. Huber, M.D., Timothy J. Twomey, B.S., Michael O. Measom, M.D.

NR626 The Effects of Mirtazapine on Plasma Lipids in Healthy Volunteers
Linda M. Nicholas, M.D., Amy L. Ford, M.A., Sharon M. Esposito, M.D., R. David Ekstrom, M.A., Robert N. Golden, M.D.

NR627 Effects of Ketamine and an Anticholingeric in Cebus Monkeys
Daniel E. Casey, M.D., Yasuyuki Shiigi, M.S.

NR628 The Precision of Comparability of Adverse Event Rates of Newer Antidepressants
Karl J. Looper, M.D., Stephen Vida, M.D.

NR629 Management of Weight Gain and Diabetes by Clozapine-Quetiapine Fumarate Combination Therapy: Preliminary Findings
Michael J. Reinstein, M.D., Larissa A. Sirotovskaya, M.D., Sangarapillai C. Mohan, M.D., Lynne E. Jones, R.N., Maxim A. Chasanov, M.D.

NR630 Quetiapine Fumarate and Risperidone in Outpatients with Psychotic Disorders: Results of the QUEST Trial
Michael J. Reinstein, M.D., Mohammed A. Bari, M.D., Lawrence D. Ginsberg, M.D., Nat H. Sandler, M.D., Jamie A. Mullen, M.D.

NR631 A Retrospective Study of the Use of Fluoxetine in Children
Jesus J. De La Gandara, Jose L. Velasco, M.D.

NR632 Fluoxetine: Open-Trial in Pathological Gambling
Jesus J. De La Gandara, Olga Sanz, M.D., Inmaculada Gilaberte, M.D.

NR633 Changes in Cognitive Function with Quetiapine Fumarate Versus Haloperidol
Dawn I. Velligan, Ph.D., John W. Newcomer, M.D., Joseph Pultz, Ph.D., John G. Csernansky, M.D., Anne L. Hoff, Ph.D., Roderick Mahurin, Ph.D., Alexander L. Miller, M.D.

NR634 Bupropion Sustained Release in Obesity: A Randomized Double-Blind, Placebo-Controlled Study
Kishore M. Gadde, M.D., Eric J. Logue, B.S.

NR635 Compliance with Samples and Prescriptions
Leo J. Bastiaens, M.D., Salim A. Chowdhury, M.D., Larry Gitelman, R.N.

NR636 Fluoxetine 20mg Meta Analysis Efficacy Safety
Charles M. Beasley, Jr., M.D., Denni M. Millard, M.S., Stephanie Koke, M.S., Julia Dillon, Pharm.D.

NR637 The Cardiovascular Effects of Fluoxetine in Two Depressed Patient Populations: Healthy and Following a First Myocardial Infarction
Charles M. Beasley, Jr., M.D., Jacqueline J. Strik, M.D., Adriaan Honig, M.D., Richel Lousberg, Ph.D., Hanneke G. Tuynman-Qua, M.D., Petra M. Kuijpers, M.D., Emile C. Cheriex, M.D.

NR638 Efficacy and Safety of Rivastigmine in Alzheimer's Disease Patients with Vascular Risk Factors
Vinod Kumar, M.D., Kiminobu Sugaya, Ph.D., John Messina, Ph.D., Jeff Veach, M.S.

NR639 Evaluation of Patients Converted from Brand Name Clozaril to Generic Clozapine
Vinod Kumar, M.D.

NR640 Citalopram Treatment of Fluoxetine Nonresponders
Michael E. Thase, M.D., R. Bruce Lydiard, M.D., John P. Feighner, M.D.

NR641 Fluoxetine Treatment of Depressed Patients with Comorbid Anxiety Disorders
Shamsah B. Sonawalla, M.D., Mark G. Pingol, B.A., Margarita L. Delgado, B.A., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.

NR642 Differences Between Drop-Outs and Completers of a Long-Term Antidepressant Trial
Shamsah B. Sonawalla, M.D., Amy Farabaugh, M.A., Vinita Leslie, M.A., Laura Polania, B.A., Joel Pava, Ph.D., John D. Matthews, M.D., Maurizio Fava, M.D.

NR643 Prevention of Depression Recurrence with Citalopram: Results from a Double- Blind, Placebo-Controlled Trial
Alan G. Wade

NR644 Dysphoric Symptoms Associated with Leuprolide
Julia K. Warnock, M.D., J. Clark Bundren, M.D., David W. Morris, M.A.

NR645 Efficacy of Sertraline in Long-Term OCD Treatment: Preliminary Results of a Multicenter Study
Lorrin M. Koran, M.D., Delbert G. Robinson, M.D., Elizabeth Hackett, Ph.D., Arkady Rubin, Ph.D., Robert Wolkow, M.D.

NR646 Citalopram Plus Clomipramine for Refractory OCD
Lorrin M. Koran, M.D., Stefano Pallanti, Ph.D., Rogerio Paiva, Leonardo Quercioli

NR647 Fluoxetine Treatment of Atypical Depression
Patrick J. McGrath, M.D., Jonathan W. Stewart, M.D., Frederic M. Quitkin, M.D.

NR648 Prevalence of Polypharmacy in Different Clinical Settings and Its Relation to Drug-Drug Interactions
Mujeeb U. Shad, M.D., Cheryl Carmichael, B.B.A., Sheldon H. Preskorn, M.D., W. Dale Horst, Ph.D.

NR649 Hypercalcemia, Arrhythmia and Mood Stabilizers
Marion E. Wolf, M.D., Vasant Ranade, Ph.D., John C. Somberg, M.D., George Lutz, Ph.D., Aron D. Mosnaim, Ph.D.

NR650 Treatment of Generalized Social Phobia
Svein Blomhoff, M.D., Tone T. Haug, M.D., Mads Humble, M.D., Kerstin Hallstrom, Ph.D., Hans P. Madsbu, M.D., Jane E. Wold, M.D., Ingar Holme, Ph.D.

NR651 Cytochrome P450 Metabolism of Bupropion
Elizabeth Goodale, John A. Ascher, M.D., Sharyn Batey, Pharm.D., Barbara Haight, Pharm.D.

NR652 Antidepressants in Nursing Mother-Infant Pairs
Catherine M. Piontek, M.D., Katherine L. Wisner, M.D., Kathleen S. Peindl, Ph.D.

NR653 Schizophrenia Treatment and Its Associated Side Effects: The Attitudes and Perceptions of Health Care Professionals, Patients and Their Caregivers
Jonathan S.E. Hellewell

NR654 Biology of Sertraline in Diabetic Neuropathy
Paul J. Goodnick, M.D., Liana Mendosa, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D., C. Lindsay Devane, Ph.D.

NR655 Biology of Nefazodone in Diabetic Neuropathy
Paul J. Goodnick, M.D., Karen Breakstone, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D., C. Lindsay Devane, Ph.D.

NR656 Quetiapine Improves Psychotic Symptoms Associated with Parkinson's Disease
Jorge L. Juncos, M.D., Paul P. Yeung, M.D., Dennis Sweitzer, Ph.D., Lisa A. Arvanitis, M.D., Charles B. Nemeroff, M.D.

NR657 Risperidone Dosing Pattern, Effectiveness and Outcome: Post-Marketing Survey in India
Amresh Shrivastava Kumar, M.D., Sanjay Gupta, M.D., Murthy R. Srinivasa, M.D., Rajeshkumar C. Maniar, M.D., Gpd Rao, M.D., Nilesh Shah, M.D.

NR658 Antidepressant-Induced Sexual Dysfunction: A Multicenter and Prospective Study Using a Questionnaire of 693 Patients
Angel L. Montejo, M.D., Gines Llorca, M.D., Juan A. Izquierdo, Enrique Daniel, M.D., Jesus Derecho, M.D., Manuel Arias, M.D., Work Group of Spain

NR659 Switching to Nefazodone in Patients with Antidepressant-Induced Sexual Dysfunction
Angel L. Montejo, M.D., Gines Llorca, M.D., Juan A. Izquierdo, Fernando Rico, M.D., Enrique Daniel, M.D.

NR660 Gabapentin in Patients with Aggressive Symptoms
Zaffora Carmelo, M.D., Bruno Commodari, M.D.

NR661 Drug and Resource Use Evaluation of Risperidone and Olanzapine in Inpatients with Outpatient Follow-Up
David M. Gardner, Pharm.D., Allister Woodman, B.Sc., Linda J. Grasswick, M.D., Lili C. Kopala, M.D.

NR662 High-Dose Haloperidol Treatment
Jan Volavka, M.D., Leslie L. Citrome, M.D., Thomas B. Cooper, M.A., Pial Czobor, Ph.D., Jean-Pierre Lindenmayer, M.D., Pavel Mohr, M.D., Nigel M. Bark, M.D.

NR663 Fluoxetine Efficacy and Safety: Analysis by Gender
Rajinder A. Judge, M.D., Denni M. Millard, M.S., Stephanie Koke, M.S., Jill Gonzales, B.S.

NR664 Effectiveness and Tolerability of Adderall in Adults with ADHD
Thomas J. Spencer, M.D., Timothy E. Wilens, M.D., Joseph Biederman, M.D., Jacob B. Kagan, B.A., Sarah K. Bearman, B.A.

NR665 An Open-Label Trial of Nefazodone for the Treatment of Major Depression in Congestive Heart Failure
Francois Lesperance, M.D., Nancy Frasure-Smith, Ph.D., Jean-Lucien Rouleau, M.D., Marc-Andre Laliberte, M.D., Sylvain Lafontaine, M.D., Michel White, M.D., Robert Leroux, M.D.

NR666 One Year of Quetiapine Fumarate Availability: Any Evidence of Cataract Risk?
Henry A. Nasrallah, M.D., Vikram Dev, M.D., Ihor W. Rak, M.D., Joher Raniwalla, M.D.

NR667 Bupropion Sustained Release Treatment of Bereavement
Sidney Zisook, M.D., Stephen R. Shuchter, M.D., Simona C. Deaciuc, M.D., Pedrelli Paola

NR668 Combined Administration of Citalopram and the CYP3A4 Substrate Triazolom: A Pharmacokinetic Drug Interaction Study
Arno Nolting, M.D., Wattanaporn Abramowitz, M.D.

NR669 Effectiveness of 20mg/day Citalopram in the Prevention of Depression Relapse
Stuart A. Montgomery, M.D.

NR670 Continuous Duration of Antipsychotic Therapy: Are There Differences Between Subclasses or Among Agents?
William F. Signa, B.S., David S. Hutchins, M.B.A., Bryan M. Johnstone, Ph.D., Sandra L. Tunis, Ph.D.

NR671 Olanzapine Treatment Response Among Forensic Psychotic Inpatients
Simon S. Chiu, M.D.

NR672 Open Risperidone in Pervasive Developmental Disorder: Efficacy and Dyskinesias
Richard P. Malone, M.D., Roomana M. Sheikh, M.D., Muniya S. Choudhury, B.A., Anca S. Amighi, M.D., Reza Amighi, M.D.

NR673 Evaluation of the Interchangeability of Generic Clozapine with Brand Name Clozapine
Terrance J. Bellnier, M.P.A., R.P. Singh, M.D., Shyam D. Karki, Ph.D., Jane Sundberg, Ph.D.

NR674 Impact of Atypical Antipsychotics on Prescriptions of Typical Antipsychotics and Clozapine
Geetha D. Chandrasekhar, M.D., Kimberly C. Burke, M.S., Cheryl Preece, M.S., Jack D. Burke, Jr., M.D.

NR675 Effects of Quetiapine on Reducing Hostility and Psychosis in Patients with Alzheimer's Disease
Lon S. Schneider, M.D., Paul P. Yeung, M.D., Dennis Sweitzer, Ph.D., Lisa A. Arvanitis, M.D.

NR676 Computerized Assessment of Antipsychotic-Induced EPS Using Visuo-Manuel Testing
Mark Weiser, M.D., Michal Shnaider-Beeri, Ph.D., Shoshana Reiss, R.N., Nitza Nakash, M.D., Samuel Hirschmann, M.D., Shraga Hocherman, Ph.D.

NR677 Nefazodone in Major Depression: Efficacy in Patients with Mild Versus Severe Baseline Sleep Difficulties
Julio B. Bobes, M.D., Jose L. Ayuso, Ph.D., Juan Gibert, Ph.D., Jeronimo Saiz-Ruiz, M.D., Julio Vallejo, M.D., Fernando Rico-Villademoros, M.D.

NR678 Adaptation and Validation of the Spanish Version of the Changes in Sexual Functioning Questionnaire
Julio B. Bobes, M.D., Maria P. Gonzalez, Ph.D., M. Teresa Bascaran, M.D., Fernando Rico-Villademoros, M.D., Pilar Sarasa, Anita L.H. Clayton, M.D.

NR679 Pattern Analysis of Early Relapse During a Study of Long-Term Antidepressant Efficacy of Fluoxetine
Mark E. Schmidt, M.D., David Michelson, M.D., Yongman Kim, Ph.D., Charles M. Beasley, Jr., M.D., Jonathan W. Stewart, M.D., Frederic M. Quitkin, M.D.

NR680 Topiramate in Severe Treatment-Refractory Mania
Joseph R. Calabrese, M.D., Daniel P. van Kammen, M.D., M.D. Shelton III, M.D., Paul E. Keck, Jr., M.D., Susan L. McElroy, M.D.

NR681 Use of Topiramate: A New Antiepileptic Drug Used As a Mood Stabilizer
David B. Marcotte, M.D., E. Gullick, Daniel P. van Kammen, M.D.

NR682 Pilot Trial of Ondansetron in the Treatment of Eight Patients with OCD
William A. Hewlett, M.D., Sabine P. Schmid, Ronald M. Salomon, M.D.

NR683 The Long-Term Safety and Efficacy of Switching from Lithium to Divalproex in Euthymic Patients who Discontinue Lithium Because of Intolerable Effects
Carlos A. Zarate, Jr., M.D., Anthony J. Rothschild, M.D.

NR684 Valproate Treatment of Agitation in Depression
Anthony J. Rothschild, M.D.

NR685 Effects of Abrupt Discontinuation of Citalopram
John S. Markowitz, Ph.D., C. Lindsay Devane, Ph.D.

NR686 Cost-Effectiveness Evaluation of Divalproex Sodium Versus Lithium in the Treatment of Bipolar Disorder
Robert M.A. Hirschfeld, M.D., Richard H. Weisler, M.D., Paul E. Keck, Jr., M.D., E. Ahern, Dennis Revicki, Ph.D.

NR687 Citalopram Dosing of Depressed Patients by U.S. Psychiatrists
Robert M.A. Hirschfeld, M.D.

NR688 Therapeutic Equivalence of 50mg and 150mg Sertraline in Outpatient Major Depression: Results from a Clinical Trial
Karl Rickels, M.D., Edward E. Schweizer, M.D., Nicholas DiMartinis, M.D., Moira A. Rynn, M.D.

NR689 Mirtazapine Treatment of PTSD
Mark D. Herbst, M.D., Kenneth N. Sokolski, M.D., Maryanne Soratorio

NR690 An Assessment of Tardive Dyskinesia in Elderly Patients Treated with Haloperidol, Risperidone and Olanzapine
Jacquelyn G. Wilson, Pharm.D., Anita Pinkerton, B.S., Martha J. Miller, Pharm.D., Stephen M. Aronson, M.D., Venkata R. Lingham, M.D., Norma C. Josef, M.D., Cynthia L. Arfken, Ph.D.

NR691 Early Onset of Antidepressant Activity of Venlafaxine Compared with Placebo and Fluoxetine in Outpatients in a Double-Blind Study
Richard L. Rudolph, M.D., Richard Entusuah, Ph.D., Loren M. Aguiar, M.D., Albert T. Derivan, M.D.

NR692 Activation of Stress-Responsive Hormones Associated with Interruption of SSRI Treatment
David Michelson, M.D., Jay D. Amsterdam, M.D., Jeffrey T. Apter, M.D., Maurizio Fava, M.D., Peter D. Londborg, M.D., Roy Tamura, Ph.D., Lisa Pagh

NR693 Minimal Interactions Between Zaleplon and Three Psychiatric Agents
Mona Darwish, Ph.D.

NR694 Risperidone Versus Haloperidol for Schizoaffective Disorder
Philip G. Janicak, M.D., Paul E. Keck, Jr., M.D., John M. Davis, M.D., John W. Kasckow, M.D., Karen Tugrul, R.N., Sheila Dowd, M.S., Rajiv P. Sharma, M.D.

NR695 Double-Blind Comparison of Citalopram, Sertraline and Placebo
Stephen M. Stahl, M.D.

NR696 What to Do When Antidepressants Fail?
Verinder Sharma, M.B.

NR697 A Comparative Pooled Analysis Between Venlafaxine and SSRIs on Remission for Patients with MDD
Richard Entsuah, Ph.D., Richard L. Rudolph, M.D., Eliseo Salinas, M.D.

NR698 Lorazepam Treatment of Catatonia
Juan C. Gonzalez-Siejo, M.D., Yolanda Ramos, M.D., Jose I. Portilla, M.D., Ismael Lastra, M.D.

NR699 Quetiapine Fumarate for the Treatment of Dopamimetic Psychosis in Parkinson's Disease
Joseph H. Friedman, M.D., Hubert Fernandes, M.D., Carol Jacques, N.P.

NR700 A Pilot Study Concerning the Concomitant Use of Risperidone and Mirtazapine
Anton J.N. Loonen, Ph.D., Cees H. Doorschot, M.D., Marc C.J.M. Oostelbos, J.M.A. Sitsen, Ph.D.

NR701 Venlafaxine Dose Treatment in Relapse Prevention for Patients with MDD
Loren M. Aguiar, M.D., Dean Lei, Ph.D., Richard Entsuah, Ph.D., Richard L. Rudolph, M.D.

NR702 Risperidone Versus Olanzapine: Comparing Clinical Outcomes, a Retrospective Naturalistic Review
Mark H. Snaterse, B.Sc.

NR703 Second Generation Antipsychotics in the Emergency Care Setting: A Prospective Naturalistic Study
Michele Raja, M.D., Antonella Azzoni, M.D.

NR704 Antidepressant Discontinuation Therapy for Treatment-Refractory Depression
Marina Auerbach, M.D., Sean Murphy, B.A., Erik A. Klein, B.A., Eamon Dutta, M.D., Igor I. Galynker, M.D.

NR705 Predicting Disability in Chronic Patients with Schizophrenia Undergoing Maintenance Risperidone Treatment
Maria P. Gonzalez, Ph.D., Julio B. Bobes, M.D., Miguel Gutierrez, M.D., Juan Gibert, Ph.D., Maria L. Herraiz, M.D., Antonio Fernandez, M.D

NR706 Large Open-Label Study of Venlafaxine Efficacy and Safety in Changing from Prior Antidepressants
Michel De Clercq, Paul Lacante, M.D., Annick Mignon, Ph.D.

NR707 Assessment of Symptoms Affecting Quality of Life and Patient Satisfaction with Antipsychotic Drugs: New Insights for a Trial of Risperidone/Olanzapine
Ramy A. Mahmoud, M.D., Luella M. Engelhart, M.S., C. Janagap, M.S., A. George Awad, M.D.

NR708 Antalarmin Suppresses Response to Social Stress
Kamal E. Habib, M.D., Kathy Weld, Ph.D., J. Dee Higley, Ph.D., Paulo J. Negro, Jr., M.D., George Chrousos, M.D., Philip W. Gold, M.D.

NR709 Sertraline and Quality of Life Across Mood and Anxiety Disorders
Jean Endicott, Ph.D., Mark H. Rapaport, M.D., Richard L. O'Sullivan, M.D., Cathryn M. Clary, M.D., Roger M. Lane, M.D.

NR710 Biologic Measures of a Placebo Response?
Elizabeth L. McGarvey, Ed.D., Anita L.H. Clayton, M.D.

NR711 Compliance with Continuation Treatment of MDD in the Context of Combined Pharmacologic and Cognitive Therapy
Joel Pava, Ph.D., Amy Farabaugh, M.A., Shamsah B. Sonawalla, M.D., Meredith A. Rankin, B.A., Jonathan E. Alpert, M.D., John D. Matthews, M.D., Jacqueline Buchin, Ph.D., Maurizio Fava, M.D.

NR712 Fluvoxamine Controls Aggressivity in Mental Retardation
Giampaolo La Malfa, M.D., Marco Bertelli, Michele Conte, Pierluigi Cabras, M.D.

NR713 SSRIs and Sexual Behavior in Male Rats: Differential Effects of Paroxetine and Fluvoxamine
Marcel D. Waldinger, M.D., Ruud van Oorschmot, Jan Veening, Ph.D., Bereno Olivier, Ph.D.

NR714 Depression and Chronic Benzodiazepine Use
Jaap E. Couvee, M.S.C., Frans G. Zitman, Ph.D.

NR715 SPECT As a Tool to Predict Response to Sertraline in OCD
Yehuda Sasson, M.D., Talma Hendler, M.D., Elinor Goshen, M.D., Zita Zwas, M.D., Michal Lustig, M.D., Joseph Zohar, M.D

NR716 Olanzapine Versus Haloperidol D2 Occupancy: A Single Photon Emission Tomography Study
Eduard Parellada, M.D., Miquel Bernardo, M.D., Francisco Lomena, M.D., Ana Catafau, M.D., Mireia Font, Ph.D., Juan Carlos Gomez, M.D., Manel Salamero, Ph.D.

NR717 Topography of Cortical Blood Flow in MAO-Deficient Mice
Daniel Holschneider, M.D., Oscar U. Scremin, Ph.D., Ly Huynh, Kevin Chen, Ph.D., Edward De Maeyer, Ph.D., Isabella Seif, Ph.D., Jean C. Shih, Ph.D.

NR718 Striatal F-Deoxyglucose-PET and MRI in Schizotypal Disorder
Lina S. Shihabuddin, M.D., Monte S. Buchsbaum, M.D., Larry J. Siever, M.D., Erin A. Hazlett, Ph.D., Antonia S. New, M.D., Adam M. Brickman, B.A., Vivian Mitropoulou, M.A.

NR719 Age-Related Decline in Serotonin Receptors in Depressed Patients and Healthy Controls
Lakshmi N. Yatham, M.B., Peter F. Liddle, M.D., I-Shin Shiah, M.D., Gayle D. Scarrow, B.A., Raymond W. Lam, M.D., Athanasios P. Zis, M.D., Michael J. Adam, Ph.D., Thomas J. Ruth, Ph.D.

NR720 MRI Linear Measures of Cerebellum in Patients with Schizophrenia
Professor Giuseppe Bersani, Angela Iannitelli, M.D., Francesca Lupi, M.D., Claudio Di Biasi, M.D., Guido Trasimeni, M.D., Prof. Paolo Pancher

NR721 MRI in an Animal Model of Depression
Craig F. Ferris, Ph.D., Jean A. King, Ph.D., Emmeline Edwards, Ph.D., David P. Olson, M.D.

NR722 SPECT of Dopaminergic System in Bipolar Disorder
Amit Anand, M.D., Nicolaas P.L.G. Verhoeff, M.D., Dennis S. Charney, M.D., John P. Seibyl, M.D., Robert B. Innis, M.D.

NR723 Cerebellum and Brainstem in Autism Spectrum
Soo-Jung Lee, M.D., Robert T. Schultz, Ph.D., Lawrence Win, B.A., James Rambo, M.S., Lawrence Staib, Ph.D.

NR724 Thalamus and Basal Ganglia Glucose Metabolic Rate in Autism Spectrum Illnesses
M. Mehmet Haznedar, M.D., Monte S. Buchsbaum, M.D., Tse Chung Wei, Ph.D., Eric Hollander, M.D.

NR725 Zaleplon: No Next-Day Residual Sedation or Psychomotor Impairment
Martin Scharf, Ph.D.

NR726 Education Improves Outcomes in MDD
Stanley P. Kutcher, M.D., John Leblanc, M.D., Connie Maclaren, B.N., Vratislav Hadrava, M.D., Peter M. Thompson, M.D.

NR727 A Screening Instrument for Use in Psychiatric Outpatient Practice
Mark Zimmerman, M.D., Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

NR728 The Reliability of 'Praecox Feeling' in the Diagnosis of Schizophrenia
Gabor S. Ungvari, M.D., Helen F.K. Chiu, M.B., Henry C.M. Leung, M.D., Hong Yu, M.D., Eddie So, M.D., Francis Lum, M.D.

NR729 Suicidal Behavior in Patients with Adjustment Disorders
Lyudmyla Kryzhanivska, M.D., Elizabeth L. McGarvey, Ed.D., Gerald L. Brown, M.D.

NR730 Predictors of the Severity of Panic Disorder
Milan Latas, M.D., Vladan Starcevic, M.D., Goran Trajkovic, M.D., Goran Bogojevic, M.D.

NR731 Effectiveness of Gabapentin in a Broad Range of Psychiatric Diagnosis
Alexandra L. Berezovskaya, M.D., Michael Amani, M.D.

NR1 Monday, May 17, 9:00 a.m.-10:30 a.m.

Group Treatment and the Role of Depression in OCD

David M. Direnfeld, M.A., Department of Psychiatry, Buffalo General Hospital, 6873 Plaza Drive, #C, Niagara Falls NY 143 04; Michele T. Pato, M.D., Susan Gunn, R.N.

Summary:

Objective: Exposure and response prevention (ERP) has demonstrated efficacy for the treatment of obsessive-compulsive disorder (OCD). However, the lack of therapists trained in ERP and the cost of multiple individual treatment sessions often preclude its use as an adjuvant in the treatment of OCD. The present study reports the efficacy of an open trial of ERP treatment using a group rather than individual format. Treatment included 12-weekly two-hour sessions of manualized ERP and six-monthly follow-up sessions (Steketee, & Van Noppen, *1998).*

Method: Thirty-three patients met DSM-IV criteria for OCD. Severity of OCD and depression was assessed using the Yale-Brown Obsessive-Compulsive Scale (YBOCS) and the Beck Depression Inventory (BDI), respectively, at the beginning, end, and after follow-up of treatment. Thirty of 33 patients were on one of the five FDA-approved anti obsessionals for a period of at least 10 weeks prior to group ERP treatment and remained on medication throughout the initial 12 weeks of treatment.

Results: A paired T-test yielded a significant ($p < .05$) decrease from pre-treatment to post-treatment YBOCS scores in the 33 patients. This resulted in an estimated effect size of 1.29. Regression analysis on a subsample (n=23) revealed that improvement in BDI scores was associated with improvement in YBOC scores after controlling for initial severity of OC symptoms. Furthermore, at six-month follow-up there was no significant change in OC symptoms.

Conclusions: These results indicate that ERP delivered in a group setting is an effective treatment that persists at six-months follow-up. In addition, this study demonstrated that trained social workers, nurses, and doctoral-level students were able to effectively deliver this form of group treatment, thus offering the added benefits of saving both cost and therapists' time. Furthermore, these results support previous research on the role of depression in improvement of OC symptoms.

NR2 Monday, May 17, 9:00 a.m.-10:30 a.m.

Therapeutic Alliance and Psychodynamic Therapy

Laurent Lesgourgues, M.D., Department of Psychiatry, Chu Purpan, Purpan-Casselardit Hospital, Toulouse Cedex 31059, France; Christine Sarramon, M.D., Genevieve Sterck, M.D., Laurent J. Schmitt, M.D.

Summary:

Objective: Building a therapeutic alliance at the first encounter improves different forms of observance. Brief psychodynamic investigation focuses on the impact of past traumatic events, intrapsychic conflicts, and pretransference elements. Based on a four-session consultation, a hypothesis about the origin of the crisis, the structure of the personality, and the ability to modify the psychic functioning is formulated to the patient at the beginning of the second interview.

Method: 17 depressive inpatients (DSM-IV) treated both with antidepressant pharmacotherapy and supportive psychotherapy are compared with 17 similar antidepressant-treated depressive inpatients who also received brief psychodynamic investigation. The two groups were similar in age, medication, marital status, and illness duration. Assessment was performed 10 days afterhospitalization with the Haq II (Helping Alliance Questionnary) of Luborsky.

Results: Therapeutic alliance at the end of the 10 days is significantly higher after brief psychodynamic investigation (104.5 vs. 90.35; $p < 0.001$). The quality of therapeutic alliance is classified as good, intermediate, or low. In the second group, eight patients (vs. three in the first) had a good level, eight (vs. three) an intermediate level, and one (vs. 11) a low level.

Discussion: A brief psychodynamic investigation followed by an hypothesis formulated to the patient at the end of the second interview leads to a better therapeutic alliance. Moreover, this method allows faster comprehension of the psychic functioning of patients. Further investigation is necessary to evaluate the efficacy of this procedure on the prognosis of depression and length of hospitalization.

NR3 Monday, May 17, 9:00 a.m.-10:30 a.m.

Depression Following Myocardial Infarction: A Primary Investigation of Some Risk Factors

Jacqueline J. Strik, M.D., Department of Psychiatry, AZM, PO Box 5000, Maastricht 6202AZ, The Netherlands; Maurice Ballieux, M.D., Richel Lousberg, Ph.D., Adriaan Honig, M.D., Petra M. Kuijpers, M.D., Hein J. Wellens, Ph.D., Herman M. Van Praag, M.D.

Summary:

Objectives: Myocardial infarction is frequently followed by depression, increasing mortality. The underlying risk factors for the development of a depressive disorder after a myocardial infarction are still unclear. The present study investigated risk factors for depression post MI.

Methods: In a case-control study, 35 patients with a depressive disorder according to the DSM-IV criteria following a first myocardial infarction within 12 months were compared with 35 patients matched for age, sex, and size of the infarction who did not develop a depression after their first myocardial infarction. Six risk factors were evaluated, i.e., prescription of benzodiazepines or complication's during hospitalization, previous depression, living alone, not being able to go back to work, and being able to stop smoking.

Results: Prescription of benzodiazepines during hospitalization and not being able to stop smoking after the MI were related with the development of post-MI depression.

Conclusions: Patients at risk have probably at an early stage had symptoms of anxiety, sleeplessness, and/or depression, as measured by description of benzodiazepines by the cardiologist. This may alert physicians to patients who are at risk for depression. Also further in time one can indicate patients at risk, as they can not stop smoking after the MI.

This study was sponsored by Eli Lilly.

NR4 Monday, May 17, 9:00 a.m.-10:30 a.m.

Examination in a Population-Based Study: Symptoms, Course and Risk Factors

Li-Shiun Chen, M.D., Mental Hygiene, Johns Hopkins University, 624 North Broadway, Room 880B, Baltimore MD 21205; William Eaton, Ph.D., Joseph J. Gallo, M.D., Gerald Nestadt, M.D., Rosa M. Crum, M.D.

Summary:

Objective: This study examines the validity and utility of four current categories by *examining* the transition between categories, and via the triad of symptoms, course, and risk factors in

a population based sample.

Method: Data on psychopathology were collected in 1920 adults from the Baltimore Epidemiologic Catchment Area (ECA) 13-year follow-up study using the Diagnostic Interview Schedule. Polytomous, logistic recession. was used to examine the heterogeneity among four categories: major depressive disorder (MDD) only, depressive syndrome only, dysthymic disorder only, and comorbid (MDD and dysthymia).

Results: There were transitions between the four categories of depression during the 13 years. Symptom profiles for the four categories were parallel but differed in severity. Course characteristics among four categories differed slightly. Risk factor profiles among the four categories showed significant differences. Family history was associated with both depressive syndrome and MDD. Stressful life events were most strongly associated with depressive syndrome. Female gender was most strongly associated with the comorbid category.

Conclusions: The evidence suggests that except for dysthymia, the depressive categories are genetically homogeneous and environmentally heterogeneous. Stress is associated with mild depression, and gender is associated with severe depression. The apparent familial transmission of the subthreshold entity, depressive syndrome, needs further investigation.

Supported by NNE grant MH-147447.

NR5 Monday, May 17, 9:00 a.m.-10:30 a.m.

Course of Bipolar Disorder in a South-Indian Community

Mohit P. Chopra, M.D., Department of Psychiatry, Thomas Jefferson Univ Hosp, 1020 Sansom St/1652 Thompson, Philadelphia PA 19107; Kishore K. Kumar, M.D., Sanjeevani Jain, M.D., Murthy R. Srinivasa, M.D.

Summary:

Objective: Recent research studying hospital based patients report bipolar disorder as a recurrent, often chronic, condition. This study was undertaken to study the life-course of bipolar patients in a community setting in southern India.

Method: Thirty-four patients with manic-depressive psychosis had been diagnosed during a community survey using the PSE-9. A seven-year follow-up of these patients was carried out using the SADS (Lifetime) and LIFE interview schedules. Course variables like onset, episodicity, and cycling were examined, and analysis was done using the SPSS program.

Results: Twenty-eight patients (82% of original cohort, 93% of the cohort alive) were personally interviewed. Only six patients (22%) had received regular treatment during the follow-up period. Four patients (17%) were found to be rapid cyclers. The remaining patients had had a mean of 4.4 episodes over a mean illness duration of 20 years. A striking finding was that 20% of the patients had a life-course characterized by only a single manic episode. Mania was significantly over-represented in this population—73% of all episodes were manic and 22% of patients had a life-course of unipolar mania.

Conclusions: Single-episode life-courses and a preponderance of mania in a largely untreated population are findings different from current literature reports. The study suggests that the course of bipolar disorder in the community may be very different from that seen in hospital settings. Thus treatment, such as prophylaxis, may be very different in these settings.

NR6 Monday, May 17, 9:00 a.m.-10:30 a.m.

A Double-Blind, Placebo-Controlled Study of Clonazepam As an Adjunct to Lithium Maintenance Treatment of Bipolar Disorder

Victoria E. Cosgrove, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC-812, Boston MA 02114; S. Nassir Ghaemi, M.D., Claudia F. Baldassano, M.D., Christina M. Demopulos, M.D., Gary S. Sachs, M.D.

Summary:

Objective: To determine the prophylactic effect of adjunctive clonazepam for bipolar disorder.

Method: DSM-III-R bipolar type I subjects who were currently euthymic and taking lithium were randomly assigned to receive double-blind treatment with clonazepam or placebo for up to one year. At the earliest signs of symptom recurrence, patients were administered a "rescue medication" consisting of either clonazepam or placebo. Only two patients completed the one-year protocol, the rest either relapsing or discontinuing the study for administrative reasons.

Results: In the total sample (n=28), rescue medication was given to 50% (7/14) of placebo subjects and 14% (2/14) of subjects in the active clonazepam group (p=0.052, Fisher's Exact Test, one-tailed). Results from a Kaplan-Meier survival analysis for time to relapse will be presented. There were no significant differences between treatment groups for change in HAM-D, YMRS, or BPRS from baseline to termination.

Conclusion: Results from this pilot study suggest that adjunctive clonazepam, may delay relapse and warrant continued investigation of clonazepam as a maintenance treatment for bipolar disorder.

NR7 Monday, May 17, 9:00 a.m.-10:30 a.m.

Methodologies for Maintenance Studies in Bipolar Disorder: The Enriched Design

Sara R. Gaughan, A.B., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC-812, Boston MA 02114; S. Nassir Ghaemi, M.D., Gary S. Sachs, M.D.

Summary:

Objective: Examine the "enriched" design methodology in randomized clinical trials of maintenance treatments for bipolar disorder.

Method: We reviewed enrollment statistics for maintenance studies in the MGH Bipolar Research Program (MGH-BRP) and all published maintenance studies in bipolar disorder.

Results: Seven of 16 published studies (15 on lithium, one on valproate) used an "enriched" design: only responders to the mood stabilizer for acute mood episodes were included in maintenance treatment. Two studies provided enrollment data: 245 patients received acute treatment, but 45% terminated before maintenance randomization (18% for noncompliance, 15% for nonresponse, 4% for intolerance, 8% for other reasons). "Enriched" design studies in the MGH-BRP screened 32 patients in 13 months. Twenty-five (78%) entered trials and received mood-stabilizing medication for acute mood episodes or in preparation for maintenance randomization. Excluding five active patients, 14/20 subjects (70%) terminated the protocols (30% for lack of efficacy, 25% for administrative reasons, 15% for adverse events.) Only 30% were randomized to maintenance treatment.

Conclusion: Maintenance treatments often appear less effective in clinical practice than in clinical trials. The enriched design strategy may contribute to the perceived efficacy-effectiveness gap by generalizing results from a select sample. Interpretations of clinical trial data should incorporate this methodological factor.

NR8 Monday, May 17, 9:00 a.m.-10:30 a.m. Defining Guilt in Depression: A Comparison of Subjects with Major Depression, Chronic Medical Illness and Healthy Controls

Kayhan R. Ghatavie, M.D., Department of Psychiatry, Sunnybrook, 2075 Bayview Avenue, FG46, Toronto ON M4N 3M5, Canada; Anthony J. Levitt, M.D.

Summary:

Objective: Although guilt is a widely accepted feature of depression, there is little evidence to support the specificity and state versus trait nature of depression-based guilt, along with a lack of comparison to patients with other chronic medical illnesses.

Method: We compared state-guilt, trait-guilt, state-shame in outpatients with current major depression (MDE) (N=15), past MDE currently euthymic (N=15), chronic cardiac illness (N=20), and healthy controls (N=30). Subjects completed validated self report scales (the Guilt Inventory, State Shame and Guilt Scale), along with the Hamilton Rating Scale for Depression (Ham-D) and the Structured Clinical Interview for DSM-IV. Analysis involved MANCOVA to compare mean scores for state-guilt, trait-guilt and state-shame across the four groups and Pearson's correlations.

Results: Overall MANCOVA was significant ($F=2.4$, $p<0.02$). Post-hoc analysis revealed the following differences (all p's <0.05): state-guilt and state-shame, current MDE > past MDE > cardiac = healthy controls; trait-guilt, current MDE = past MDE > cardiac = healthy controls. Among depressed subjects, there was a significant correlation between the17-item Ham-D and state-guilt ($r=.58$, $p<0.001$), state-shame ($r=0.58$, $p<0.002$), trait-guilt ($r=.41$, $p<0.03$).

Conclusions: Data suggest state-guilt and state-shame are associated with depression and not another chronic medical illness, and are highly influenced by the severity of current depression. Trait-guilt is also associated with depression, but is not influenced as strongly by current depressive symptomatology.

Funding provided by a Physicians Services Incorporated (PSI) grant.

NR9 Monday, May 17, 9:00 a.m.-10:30 a.m. Reliability of Retrospective Life Charts for Rapid-Cycling Bipolar Patients

Constance Guille, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC 812, Boston MA 02114; Sara R. Gaughan, A.B., Christina M. Demopulos, M.D., Gary S. Sachs, M.D.

Summary:

Objective: To examine the test-retest reliability of the NEVM retrospective life chart (NE\4H-RLQ in rapid-cycling bipolar patients.

Method: The NINM-RLC was administered at two time points to 10 rapid-cycling subjects entering a treatment study. Durations and total number of episodes for the three years prior to study entry were compared.

Results: The median percentage of months with test-retest agreement was 24.5% for one year and 27.0% for three years. Episode counts agreed in only 20% of subjects for the first year (difference range=0-3) but in none of the subjects over the three years (difference range 1-6). Episode totals for the preceding year varied from four to six initially and one to six at retest, including four subjects reporting fewer than four episodes in the preceding year. At retest the mean number of episodes decreased significantly from 5.1 to 3.8 (paired t-test, $p<0.001$). Results over three years revealed less agreement than for the first year.

Conclusion: Results differed significantly between initial and follow-up interview, but standardized assessments likely provide more consistent results than unstructured assessments. Subject awareness of entry criteria in this rapid-cycling study may account for the higher number of episodes initially reported. Structured assessments alone do not assure reliable results.

NR10 Monday, May 17, 9:00 a.m.-10:30 a.m. Gabapentin Versus Placebo As Adjunctive Treatment for Acute Mania and Mixed States in Bipolar Disorder

Constance Guille, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC 812, Boston MA 02114; Christina M. Demopulos, M.D., Amy E. Shriver, B.S., Gary S. Sachs, M.D.

Summary:

Objective: To evaluate gabapentin as adjunctive treatment for refractory bipolar disorder.

Methods: Subjects meeting DSM-IV criteria for hypomania, mania, or mixed episode, were randomized to double-blind treatment with either gabapentin or placebo as an adjunct to their ongoing primary mood-stabilizer regime. Primary outcome measures, including Hamilton Depression Rating Scale (HDRS) and Young Mania Rating Scale (YMRS) were repeated weekly, over 10 weeks.

Results: Overall, treatment groups (n=9 gabapentin, n=9 placebo) did not differ on YMRS change scores. For women (n=8), however, there was a trend of improvement on YMRS scores in weeks 8 (0.8 vs. -12.0, $p = .07$) and 9 (-2.0 vs. 11.0, $p=.06$) placebo vs. gabapentin, respectively. HDRS scores at week 5 showed improvement for the gabapentin treatment group (placebo vs. gabapentin = 1.0 vs. -7.1, respectively, $p\geq.05$).

Conclusion: This study did not find adjunctive gabapentin to be efficacious treatment for refractory mania, but cannot address efficacy for nonrefractory bipolar disorder. No treatment has yet demonstrated efficacy as an adjunctive treatment for refractory mania in a controlled study. Minor trends support the possibility that gabapentin possesses mood-stabilizing effects; however, definite conclusions require a larger sample. Enthusiastic clinical acceptance of gabapentin as a mood-stabilizing agents may be unwarranted.

NR11 Monday, May 17, 9:00 a.m.-10:30 a.m. SSRI Treatment of Alpha Interferon-Induced Depression

Mangla S. Gulati, M.D., Department of Psychiatry, VA Hospital, 10 North Greene Street, Baltimore MD 21201; Susan A. Reed, M.S.N., Mitchel A. Kling, M.D., Robert L. Kane, Ph.D., Elliott Siegel, M.D., Hermant K. Pandey, M.D., Peter Hauser, M.D.

Summary:

Alpha interferon (IFN) has been shown to be effective therapy for chronic myelogenous leukemia, melanoma, and more recently hepatitis C. Side effects commonly leading to discontinuation of therapy include depression and cognitive impairment. We evaluated a 47-year-old man scheduled to begin IFN treatment for hepatitis C. A pretreatment Structured Clinical Interview for DSM-IV (SCID) revealed no current psychopathology. The Beck Depression Inventory (BDI) was administered weekly. A pretreatment BDI was 0. On week 14 of therapy, the BDI was 14 and increased each week to 16, 20, and 21, respectively. The patient complained of anhedonia, insomnia, fatigue, irritability, and impairment of daily functioning. 20mg of fluoxetine (a selective serotonin reuptake inhibitor) was prescribed. Subsequent weekly BDI scores were 15, 10, 8, 7, and 5. The IFN-induced depression in this patient responded well to an SSRI enabling him to continue on IFN. The second patient evaluated was a 67-year-old man with melanoma in remission. A SCID revealed no current psychopathology. Pretreatment BDI was 1. Two weeks after commencing therapy, BDI scores were 3, 2, 5, and on week 6 was 20. He was hospitalized feeling anxious and depressed with loss of appetite, insomnia and inability to concentrate. IFN was discontinued and the symptoms subsided with a BDI score of 3. He was restarted on IFN, and on week 5 depressive symptoms reappeared with a BDI of 16. IFN was discontinued. The patient was prescribed 20mg fluoxetine, and IFN was restarted two weeks later. He reported no further symptoms of depression while on IFN. In this case, the prophylactic use of an SSRI may have prevented the onset of depression and allowed completion of a therapeutic dose of IFN.

This project is an investigator-initiated study supported by Schering Plough Co.

NR12 Monday, May 17, 9:00 a.m.-10:30 a.m.

T3 Levels and Treatment Response to Fluoxetine in Depression

Dan V. Losifescu, M.D., Department of Psychiatry, MA General Hospital WAC 812, 32 Fruit Street, Boston MA 02114; Shauna Howarth, B.A., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., John J. Worthington III, M.D., Maurizio Fava, M.D.

Summary:

Objective: We wanted to replicate the findings of a previous study (Fava et al., 1995) on the prevalence of thyroid abnormalities in depressed outpatients and to investigate the treatment outcome in patients with abnormal T3 levels.

Method: We studied 321 outpatients meeting DSM-IV criteria for major depression and measured their levels of total T3, as the most sensitive test for subclinical thyroid pathology (Fava et al., 1995). Of those, 235 patients completed an eight-week open treatment with fluoxetine 20 mg/day. The 17-item Hamilton Rating Scale for Depression (Ham-D-17) was administered before and after treatment to assess changes-in depressive symptoms. The patients with abnormal T3 levels also had their TSH levels measured.

Results: No clinical hypothyroidism and two cases (.8%) of clinical hyperthyroidism (TSH=<0.10 and 0.12) were detected. Sixteen patients (4.9%) had low T3 levels (range 16.5-21), and seven patients (2.1%) had high T3 levels (range 36-38). No relationship was found between T3 levels and clinical improvement, defined as either total Ham-D-17 score change or Ham-D-17 score ≤7 in the last three weeks of treatment, even after adjusting for baseline seventy of depression.

Conclusion: Subclinical hypothyroidism and hyperthyroidism, as measured by T3 levels, are uncommon in outpatients with major depression, and even when present, do not appear to have an impact on treatment outcome.

NR13 Monday, May 17, 9:00 a.m.-10:30 a.m.

The Perimenopause Is a Period of Risk for Depressive Symptoms in Middle-Aged Women

Hadine Joffe, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WACC 815, Boston MA 02114; Lee S. Cohen, M.D., John Hennen, Ph.D., Karen Carlson, M.D.

Summary:

Objectives: To evaluate whether the perimenopausal phase is a period of risk for depressive symptoms in middle-aged women.

Methods: All consecutive patients seen in a women's primary-care clinic in a six-month period were asked to complete a questionnaire about their mood and menstrual cycles. All women aged 40-60 (48.1 ± 5.2 years) whose menopausal status could be determined (n=363) were assigned to a menopausal status as follows: 1) premenopause = regular menstrual cycles (4 1%); 2) perimenopause = irregular cycles or amenorrhea < 12 months (31%); and 3) postmenopause = amenorrhea ≥ 12 months (28%). The presence of current depressive symptoms was assessed with the Community Epidemiology Scale for Depression (CES-D). CES-D scores and depression histories were compared among the three groups.

Results: The mean CES-D scores for the three groups were similar (p=0.63) with mean CES-D 12.1 ± 9.0 for all subjects. A history of depression was equally common among pre- (30%), peri- (27%), and postmenopausal (32%) women (p=0.70). When we controlled for a history of depression using a multivariate logistic regression, perimenopausal women were twice as likely to have an elevated CES-D score (>75th percentile) than premenopausal (odds ratio, OR=2.0; p=0.037) but not postmenopausal (OR= 1.0, P=0.86) women. Among perimenopausal women, hot flushes were strongly correlated with an elevated CES-D score (X2=Q.11- p=0.002).

Conclusions: On a standardized depression scale, when controlling for a history of depression, perimenopausal women were twice as likely as middle-aged premenopausal women to have significant depressive symptoms.

Research supported by the Kaplan Depression Research Fellowship, Harvard Medical School (Joffe) *and Organon Inc. (Cohen).*

NR14 Monday, May 17, 9:00 a.m.-10:30 a.m.

The Mathematics of Mood Variation

David M. Kreindler, M.D., Department of Psychiatry, University of Toronto, 598 Shaw Street, Toronto ON M6G 3L6, Canada; Charles J. Lumsden, Ph.D.

Summary:

Objective: Recent studies have noted differences in the temporal patterning of mood variation between individuals with bipolar affective disorder (BAD) and controls. We report here a novel mathematical model that can replicate such differences.

Method: We postulate an intermediate-level, agent-based architecture of the mind modeled on the work of Bak, Tang, and Wiesenfetd (BTW) (1987). A computer simulation of the model was used to generate quantitative predictions.

Results: Simulation data replicate a number of the previously unexplained differences noted in quantitative comparisons of normal and BAD mood variation (e.g., Gottschalk, Bauer, & Whybrow, 1995). Transitions between normal and BAD temporal patterning can be simulated by changes in the connectivity between the agents mediating the patient's interpretation of, and response to, stress.

Conclusions: BTW-type architecture is consistent with documented mood dynamics, with the inter-agent connectivity as the principal etiological factor. This suggests that episodes of illness must be considered as aspects of a pathological process distributed in time that impacts mood variation on all time scales and intensities, sensitive to an individual's history of stressful events, one's individual pattern of sensitization to stress, and alterations in the character of the stress-dissipation process.

NR15 Monday, May 17, 9:00 a.m.-10:30 a.m. Lamotrigine in Treatment-Refractory Bipolar Disorder: A Brazilian Experience

Beny Lafer, M.D., Department of Psychiatry, Univ of Sao Paulo Med School, Av Dr Ovidio P Campos Sala 4045, Sao Paulo SP 05403-010, Brazil; Renata S. Tamada, M.D., Cilly K. Issler, M.D., Jose A.M.S. Amaral, M.D.

Summary:

Objective: To study the efficacy of lamotrigine in the treatment of patients with refractory bipolar disorder who had partial or no response to standard mood stabilizers (lithium, carbamazepine, and valproic acid).

Methods: Six patients with bipolar disorder type I were studied. All patients satisfied diagnostic criteria using the Structured Clinical Interview for DSM-IV (SCID-P). Four patients had rapid cycling and two had refractory bipolar depression. The patients were followed prospectively and were evaluated using Hamilton Depression Scale, Young Mania Rating Scale, Brief Psychiatric Rating Scale, Clinical Global Impression (CGI), and Global Functioning Scale.

Results: Using the CGI as an outcome measure, two patients had marked response and two had a moderate response to lamotrigine. Two patients had no response, and one of those presented a manic episode 10 days after starting the drug.

Conclusion: Lamotrigine is similar to valproic acid on its antiepileptic action and may be a good alternative in treatment of patients with bipolar disorder. Our results suggest that the use of lamotrigine can be useful in a subgroup of bipolar patients refractory to standard mood stabilizers. Further controlled studies are necessary to confirm the results of this open, prospective study and determine which subtype of bipolar patients have a better response to this drug.

NR16 Monday, May 17, 9:00 a.m.-10:30 a.m. The Effects of Bupropion SR on the Subjective Sleep Quality of Depressed Patients

Geoffrey E. Ott, B.A.S., Department of Psychiatry, RE19 1124 W Carson Street, Bldg F-5, Torrance CA 90502; Russell E. Poland, Ph.D.

Summary:

Objective: The purpose of this study was to examine the effects of Wellbutrin (bupropion) SR on subjective sleep measures in patients with major depression.

Method: Ten depressed patients with HAM-D scores (17-item scale) of ≥ 14 (18.0 ±0-7) participated in an open-label trial of Bupropion SR. Patients were followed at the Harbor-UCLA Medical Center psychiatric outpatient clinic. Patients rated their quality and length of sleep, including number of awakenings, before and throughout the study. A Pittsburgh Sleep Quality Index (PSQI), measuring overall sleep quality, was completed before and after six weeks of treatment.

Results: Eight of ten patients had HAM-D scores ≤ 10 (7.5 ± 0.7) at the end of the study. After treatment, responders reported sleeping longer, waking up less, and improved sleep quality. Both responders and nonresponders reported sleeping less after treatment. Neither age nor sex affected the sleep quality or depression rating changes.

Conclusions: Wellbutrin SR was well tolerated, improved depressive symptoms, and improved overall sleep quality.

Research supported by GlaxoWellcome and MH-47193.

NR17 Monday, May 17, 9:00 a.m.-10:30 a.m. Do NEO Personality Traits Fluctuate Across Mood States in Rapid-Cycling Bipolar Patients?

Sharon H. Rackow, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC 812, Boston MA 02114; Christina M. Demopulos, M.D., Noreen A. Reilly-Harrington, Ph.D., Gary S. Sachs, M.D.

Summary:

Objective: To determine if personality is an enduring part of our core being as individuals, or if it fluctuates, influenced by mood state.

Methods: The five-dimension NEO-PI scores of 10 rapid-cycling bipolar patients were assessed on an average of 4.4 times over an average of 14.6 weeks, and correlated with clinician-rated scores on the Hamilton Depression (Ham-D) and Young Mania (YMRS) Rating Scales.

Results: There were several significant correlations between the Ham-D and the various dimensions of the NEO-PI, including Ham-D to neuroticism (r=.40), Ham-D to agreeableness (r=.31), and H-D to conscientiousness (r=.30). There were no significant correlations between the NEO-PI and YMRS scores. Patients who met categorical criteria for depression (Ham-D of 18+), demonstrated a significant correlation between Ham-D and openness (r=.74), and a marginally significant correlation between Ham-D and neuroticism (r=-.32). Patients who met categorical criteria for mania (YMRS of 13+), exhibited marginally significant correlations between YMRS and extroversion (r=.39), YMRS and agreeableness (r=.34), and YMRS and conscientiousness (r=-.38).

Conclusion: The rapid-cycling bipolar population presents a unique opportunity to examine changes in personality over a range of mood states. These preliminary results indicate that personality may indeed fluctuate with changes in mood.

NR18 Monday, May 17, 9:00 a.m.-10:30 a.m. Cognition and Stress in Bipolar and Unipolar Disorder

Noreen A. Reilly-Harrington, Ph.D., Department of Psychiatry, Mass Gen Hosp/Harvard Med Sch, 15 Parkman Street, WACC-812, Boston MA 02114; David M. Fresco, M.A., Lauren B. Alloy, Ph.D., Wayne G. Whitehouse, Ph.D.

Summary:

Objective: To further explore the applicability of cognitive theory to bipolar disorder. While extensive research has examined the role of cognitive vulnerability and life stress in unipolar depression, comparatively little is known about the role of such psychosocial factors on the course of bipolar mood disorders.

Method: We examined the interaction of cognitive style (as assessed via self-report and information processing battery) and stressful life events in predicting the clinician-rated depressive and manic symptomatology of participants with lifetime diagnoses of bipolar disorder (n=49), unipolar depression (n=97), or no lifetime diagnosis (n=23). Assessments occurred at two time points (averaging one month apart).

Results: Participants' cognitive styles and negative self-referent information processing as assessed at Time 1 interacted significantly with the number of negative life events that occurred between Times 1 and 2 to predict increases in depressive symptoms from Time 1 to Time 2. Within the bipolar sample, participants' Time 1 cognitive styles and self-referent information processing interacted significantly with intervening life events to predict increases in manic symptoms from Time 1 to Time 2.

Conclusion: Cognitive styles interacted significantly with intervening life events to predict depressive and manic symptom increases. Thus, cognitive-behavioral interventions may represent valuable adjunctive treatments for bipolar mood disorders in modifying negative cognitive styles that may contribute vulnerability to relapse.

NR19 Monday, May 17, 9:00 a.m.-10:30 a.m.
Compliance of Bipolar Patients with Follow-Up

Syed W.H. Rizvi, M.D., Department of Psychiatry, Eastern Virginia Med School, 825 Fairfax Avenue, Norfolk VA 23507; Steve J. Brasington, M.D., Armin Ansari, M.D., Lisa Fore Arcand, Ed.D.

Summary:

Objective: To evaluate psychosocial and clinical factors influencing the compliance of bipolar patients with their outpatient follow-up appointments after discharge from inpatient psychiatric unit and to identify potential points of intervention to improve compliance of bipolar patients.

Methods: Sixty patients with the diagnosis of bipolar disorder, who were admitted to the inpatient psychiatric unit and had scheduled outpatient follow-up appointments, were studied. Diagnosis was based on psychiatric evaluation done by the treatment team using DSM-IV criteria. Bipolar patients discharged without an outpatient appointment and those readmitted to the same inpatient psychiatric unit were excluded from the study. Following discharge, the outpatient facilities were contacted to determine whether patients attended their appointments. Then a comparison of psychosocial and clinical variables was made by analysis of abstracted chart data using statistical tools.

Results: Bipolar patients with substance abuse problems, coexisting Axis-III diagnosis, and homelessness showed lower follow-up rates. Follow-up rates were also lower for bipolar patients who followed-up in community mental health centers as compared with private offices.

Conclusion: This study, limited by the small sample size, suggests that factors like homelessness, additional medical problems, and substance abuse problems significantly affect the compliance of Bipolar patients with their outpatient appointments.

NR20 Monday, May 17, 9:00 a.m.-10:30 a.m.
Life Events and Season in Predicting Depression

Dena G. Rosenberg, Ph.D., Department of Psychology, University of Miami, PO Box 249229, Coral Gables FL 33124; Sheri L. Johnson, Ph.D.

Summary:

Season has been shown to predict manic and bipolar depressive symptoms. Recent research, which operationalized seasonality as a continuous variable, indicates seasonality is normally distributed. However, many questions remain unanswered, including whether seasonality manifests as a vulnerability. To address this question the current study will examine the interaction between life events and seasonality in predicting bipolar depression. Bipolar I patients were recruited during an index episode in south Florida as part of an NIMH-funded non-treatment study. Participants are interviewed monthly using the Modified Hamilton Rating Scale for Depression. Individual seasonality indices (light/depression, heat/depression), will be constructed by conducting time series cross-correlations of the relationship between depressive symptoms and the average meteorologic indices of the seven days preceding those symptoms. Medication data will be integrated. Life events will be measured using the LEDS interview by Brown and Harris. Severity of life events will be rated consensually. Results will be presented, and clinical as well as theoretical implications will be discussed.

NR21 Monday, May 17, 9:00 a.m.-10:30 a.m.
Reversed Neurovegetative Symptoms and Seasonality in Bipolar, Seasonal and Unipolar Depression

Marnie R. Sambur, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WACC 812, Boston MA 02114; Paul H. Desan, M.D., Jonathan Sporn, M.D., Dan A. Oren, M.D., S. Nassir Ghaemi, M.D.

Summary:

Background: While atypical symptoms of increased sleep, weight, and appetite have been reported to be more common in bipolar depression than unipolar depression, other reports differ.

Methods: We studied symptoms and predominant season of depression in 129 patients with DSM-IV criteria for: bipolar disorder (n=64, 49 BPI and 15 BPII), seasonal affective disorder (winter type; n=37), and unipolar depression (n=28). Significant differences were evaluated by Chi Square test, $p<.05$, with Bonferroni correction.

Results: Compared with unipolar patients, bipolar and seasonal patients displayed significantly more hypersomnolence (70.3%, 78.4%, 25.0%, respectively) and increased appetite or weight (27%, 62%, 7%), and less insomnia (32.8%, 37.8%, 78.6%) and decreased appetite or weight (52.5%, 2.7%, 50%). Furthermore, symptoms of both increased sleep and weight/appetite were significantly more frequent in bipolar and seasonal affective than in unipolar disorder (32.3%, 75.7%, 0%, respectively), while the presence of both decreased sleep and weight/appetite was significantly less frequent (1.9%, 2.7%, 53.6%). Co-occurrence of increased sleep and weight/appetite was significantly higher in bipolar II than bipolar I patients (60% vs. 22.4%). Depression occurring seasonally was significantly more common in bipolar than unipolar patients (54.4%,14.3%).

Conclusion: These results agree with some previous studies of greater reversed neurovegetative symptoms in bipolar and sea-

sonal depression, and further suggest that bipolar II depression may possess more of these symptoms than bipolar I depression.

NR22 Monday, May 17, 9:00 a.m.-10:30 a.m.
The Role of Gender and Comorbid Anxiety in Suicidal Ideation in Major Depression

Ayal Schaffer, M.D., Department of Psychiatry, Sunnybrook, 2075 Bayview Avenue, FG46, Toronto ON M4N 3M5, Canada; Anthony J. Levitt, M.D., R. Michael Bagby, Ph.D., Sidney H. Kennedy, M.D.

Summary:

Objective: To examine the role of gender and anxiety on the degree of suicidal ideation found in patients with a current major depression.

Method: A retrospective review of a database of patients with major depression (N=287; 93 male, 194 female) seen at a university-affiliated clinic was performed. Suicidal ideation was assessed using scores on the suicide items of the Hamilton Depression Rating Scale (HDRS), Beck Depression Inventory (BDI), and the Schedule for Affective Disorder and Schizophrenia (SADS). To test the effect of gender and anxiety on suicidality, a series of analysis of variance were used.

Results: Among the 287 subjects, 177 had a lifetime diagnosis of an anxiety disorder, 153 had a current anxiety disorder, and 92 had a past anxiety disorder. Controlling for severity of depression, the HDRS suicide item is significantly affected by gender (F=9.416, df=1, p=0.002), lifetime anxiety (F=7.806, df=1, p=0.006), and current anxiety (F=6.212, df=1, p=0.013). Trends of similar effects were seen on the SADS suicide item. There was no significant interaction term in any of the analyses.

Conclusions: Female gender and the presence of a current or lifetime anxiety disorder appear to independently increase the degree of suicidal ideation seen in patients with major depression, even when severity of depression is taken into account.

NR23 Monday, May 17, 9:00 a.m.-10:30 a.m.
Psychiatric Disorders in Children of Bipolar Patients Versus Controls: Preliminary Results

Cesar A. Soutullo, M.D., Department of Psychiatry, University of Cincinnati, 231 Bethesda Ave/PO Box 670559, Cincinnati OH 45267-0559; Melissa P. Del Bello, M.D., Leah S. Casuto, M.D., Kathleen Lake, M.S.W., Sarah M. Graman, B.A., Patricia McDonough-Ryan, M.A., Susan L. McElroy, M.D., Stephen M. Strakowski, M.D., Paul E. Keck, Jr., M.D.

Summary:

Objective: Children of parents with bipolar disorder (BP) have a much higher lifetime risk of developing BP than the general population. We hypothesize that children at high risk for BP will display higher rates of mood, anxiety, and disruptive behavior disorders than controls.

Methods: We evaluated 16 children of parents with BP, and seven children of parents without any Axis I disorder using the 1996 Kiddie and Young Adult Schedule for Affective Disorders and Schizophrenia for DSM-IV (KYA-SADS), and K-SADS, Present and Lifetime. Raters were blinded to group. Parents received Structured Clinical Interview for DSM-IV (SCID) to confirm the diagnosis, or lack of it, of BP.

Results: Eleven (69%) high-risk children, but only one (14%) control, had a lifetime Axis I disorder. High risk children displayed higher rates of mood disorders (Fisher's Exact Test, p = 0.03), and subsyndromal anxiety symptoms (p = 0.05) than controls. We found a trend toward higher rates of ADHD in high risk children (p = 0.06). Groups were matched for age, sex, and race.

Conclusions: Early-onset mood, anxiety, and possibly disruptive behavior symptoms may represent early presentation forms of bipolar disorder in children at high-risk. Longitudinal studies are needed to establish the long-term history of symptoms in these children.

Supported by a Grant from the Theodore and Vada Stanley Foundation

NR24 Monday, May 17, 9:00 a.m.-10:30 a.m.
Thrombocytosis in Depression

Paulo J. Negro, Jr., M.D., CNE, National Institute of Health, 10 Center Dr/Bldg 10, Rm 2D-46, Bethesda MD 20892

Summary:

Background: Functional and quantitative platelet abnormalities have been variably reported in major depression, and may be of consequence for risk of coronary artery disease in these patients. We hypothesize that dysfunctional HPA axis function in affective disorders may result in thrombocytosis.

Objectives: 1) Compare platelet counts in patients with current or past depression and healthy volunteers. 2) Correlate findings with 24-hour free urinary cortisol (UFC) levels.

Method: Twenty eight patients with current or past major depression and 26 healthy volunteers were evaluated using standardized SCID-I interview, detailed history, physical examination, and laboratory work-up (including a 24-hr UFC collection) ruling out coexisting other psychiatric and nonpsychiatric disease.

Results: 1) Mean platelet counts were elevated in the depression group (284.5 K/mm^3, sd 67.1), compared with healthy volunteers (236 K/mm^3, sd 48.8), p=0.003 by 2-tailed t-test. The observed platelet increase is independent of current mood state. 2) Platelet counts did not correlate with 24-hr UFCs in either group (r=-0.05).

Conclusions: Though significantly elevated in subjects with current and previous depression, platelet levels did not correlate with 24 hr UFC's. However, this is not a sensitive HPA axis function measure. In addition to thrombopoietin, several other recombinant cytokines (including IL-1,-3,-6,-11) have both direct and indirect stimulatory effects in vitro and in vivo on cells of the megakaryocitic lineage. Different HPA axis parameters are altered in depression and potentially interact with immune systems likely to affect the megakaryocitic lineage.

NR25 Monday, May 17, 9:00 a.m.-10:30 a.m.
The Influence of Additional Antidepressive Medication on the Assimilation Process of Problematic Experiences in Psychotherapy

Ludwig Teusch, M.D., Department of Psychiatry, University, Virchowstreet 174, Essen 45147, Germany; Hildegard Boehme, Jobst Fine, M.D., Markus Gastpar, M.D.

Summary:

There are controversialconcepts about the interaction between psychotherapeutic and psychopharmacological strategies in moderately depressed patients. The question is whether the therapeutic process is enhanced by additional psychotropic, mostly antidepressive medication.

Methods: 100 patients admitted consecutively to an inpatient psychotherapeutic treatment unit were rated with the Bech-

Raphaelsen Melancholia Scale (BRMES). N=76 patients with BRMES Score 6-21 (corresponding to KAMD-17; 9-30) were included at admission (T1) in a naturalistic study design. They. were rated with the Assimilation Scale of Problematic Experiences (APES) of Sties in middle of treatment (T2), at discharge (T3) and at 1-year f.u. (T4). All patients took part in a conflict-centered individual and group therapy setting. The therapists were free to administer medication or not.

Results: Medicated patients (n=48) were less depressed and more often had an additional personality disorder. The decline of depression (T2,'T3) did not differ in patients with (n=48) or without (n=28) medication. Comparing patients with the same initial degree of depression, patients without medication were superior in emotional engagement insight and problem solving measured with APES.

Discussion: Focusing treatment on psychotherapy alone seems to be superior in promoting the psychotherapeutic process. Methodological limitations are discussed.

NR26 Monday, May 17, 9:00 a.m.-10:30 a.m. Arginine Vasopressin-Neurophysin in Depressed Suicide Attempters and DST

William Pitchot, Ph.D., Department of Psychiatry, University of Liege, Chu Du Sart Tilman, Liege 4000, Belgium; Marc M. Ansseau, Ph.D., Jean-Jacques Legros, Ph.D.

Summary:

Objectives: Recently, a relationship between HPA axis overactivity and arginine vasopressin (AVP) has been reported (Inder at al. 1997). Moreover, in this study, depressed patients with a history of suicide attempt exhibited higher plasma AVP concentrations than depressed controls without history of suicidal behavior. The purpose of the present study was to assess if AVP-neurophysin is associated with hypercortisolemia and suicidal behavior in depressed patients.

Methods: The study included 28 patients (19 M, 9 F) subgrouped into suicide attempters (n=13) and nonattempters (n = 15). In all subjects, we measured basal plasma levels of AVP-neurophysin and post-DST cortisol concentrations.

Results: We did not observe any correlation between AVP-neurophysins and post-DST cortisol levels ($r = -0.07$, $p = 0.72$). Suicide attempters did not differ from nonattempters for AVP-neurophysin levels : 0.34 ± 0.16 ng/ml vs 0.31 ± 0.18 ng/ml ($F = 0.14$, $p = 0.7$).

Conclusion: Our results did not confirm the hypothesis of a relationship between hypercortisolemia and AVP. Moreover, AVP-neurophysins did not seem to play a major role in the biology of suicidal behavior.

NR27 Monday, May 17, 9:00 a.m.-10:30 a.m. Premenstrual Symptoms and Suicide Attempts

Enrique Baca-Garcia, M.D., Department of Psychiatry, Ramon Y Cajal Hospital, Ctra Colmenar Km 9,2, Madrid 28034, Spain; Carmen Diaz-Sastre, M.D., Antonio Ceferino, M.D., Silvia Zabala, M.D., Jose de Leon, M.D., Jeronimo Saiz-Ruiz, M.D.

Summary:

Background: There is an association between the menstrual cycle and suicidal attempts. It has been hypothesized that premenstrual syndrome, acting as a trigger factor, may explain this association.

Methods: Seventy-one Spanish women with regular menstrual cycles who attempted suicide were asked about premenstrual symptoms using DSM-IV criteria for premenstrual dysphoric disorder. The symptom frequencies were compared to Thin's study the only published similar study, – and also with another study on the prevalence of premenstrual syndrome in the Spanish general population.

Results: The most frequent premenstrual symptoms were irritability 70% (95% confidence intervals, CI, 60-84) and depression 45% (CI 33-47). The frequency of depression was significantly lower than Thin's sample 74% (CI 64-84). Approximately 20% of the 71 patients met criteria for premenstrual dysphoric disorder, while a prior study in the general Spanish population found 30%. There was no significant association between meeting criteria for premenstrual dysphoric disorder and the phase of the menstrual cycle when the women attempted suicide.

Conclusions: In spite of the high rate of premenstrual symptoms in women with suicide attempts, they do not appear to be associated with the suicide attempts. This study was partially supported by a NARSAD Young Investigator Award.

NR28 Monday, May 17, 9:00 a.m.-10:30 a.m. Youth Suicide Among Hispanic and Anglo Males in Dade County, Florida, 1978-1996

Amparo B. Benitez, D.O., Department of Psychiatry, University of Miami JMH, 1150 NW 14th St, Ste 501 (M861), Miami FL 33136; Daniel Castellanos, M.D., Maria D.D. Llorente, M.D.

Summary:

Objectives: To identify the differences in psychosocial and clinical factors and suicide rates between Hispanic and Anglo male youth suicide victims.

Method: Two hundred forty-seven deaths certified as suicides by the medical examinees office for victims 24 years or younger in Dade and Monroe counties, Florida from 1978-1996 were examined. The death certificates identified the deceased as Hispanics (N=128) and Anglos (N=119) with the average age at suicide being 20 years for both groups. The medical examiners, records were examined for information regarding psychosocial factors, clinical factors, and characteristics of the suicidal act were also examined.

Results: Cuban Americans comprised the largest Hispanic subgroup. Hispanics and Anglos were not significantly different with respect to education level, living arrangements, history of legal problems, and alcohol and substance abuse. Interpersonal conflicts preceding the suicide were identified more often among Hispanics than Anglos. Significant differences were not found in methods of suicide utilized, or time and season of the death. Analysis of suicide rates is being performed.

Conclusions: Psychosocial and clinical risk factors predisposing youths to commit suicide are no different for Hispanic and Anglo victims. However, interpersonal conflicts appear to trigger suicidal acts in Hispanic as opposed to Anglo males.

Supported by a grant by the American Foundation for Suicide Prevention, Florida Division

NR29 Monday, May 17, 9:00 a.m.-10:30 a.m. Clinical and Psychological Risk Profile of Suicide Attempters

Cesar Fernandez, M.D., Medicine, Psychiatric Area, Julian Claveria 6-3, Oviedo 33006, Spain; Pilar A. Saiz, M.D., Juan C.

Gonzalez-Seijo, Ph.D., Maria P. Gonzalez, Ph.D., Yolanda Ramos, Ph.D., Julio B. Bobes, M.D.

Summary:

Objective: To determine differences: suicidal attempt, ideation, other psychiatric inpatients.

Patients: Psychiatric inpatients: suicidal attempt (n= 46) - SA-; suicidal ideation (n= 37) -SI-, no suicidal activity (attempt - ideation) (n= 43) -NSA-. Evaluation: Hopelessness Scale (HS), HDSR, EPQ-A.

Results: Mean age: SA: 39.8. SI: 42.7. NSA: 39.9. females: SA: 47.8%, SI: 52.8%, NSA: 39.5% (no sociodemographic, family psychiatric. suicidal history differences); personal history: SA - higher % suicidal attempts than NSA (65.2%: 30.2%, p=.001); mean number suicidal attempts [1.7: 0.8: 0.5, F=.007]; mean scores: HS.- 6.9: 10.1: 4. 1, F=.000. HDRS.17.6: 17.7: 9.23, F=.000. EPQ-A.- (statistical differences only): males: EPQ-N [17.0: 19.2: 14.0, F=.0061], females: EPQ- N [17.4: 2 0.6 : 15.9. F= .0 15], EPQ-E [7.5: 6.8: 12. 0, F= . 004].

Conclusions: More previous suicidal acts in SA. Greater hopelessness, depression, emotional instability, and introversion (females only) - patients with suicidal activity. SA distinguishable from SI: number suicidal acts (higher), hopelessness (lower), emotional instability (lower - females).

NR30 Monday, May 17, 9:00 a.m.-10:30 a.m.
Suicide Following Assessment at a Psychiatric Hospital

Heidi H.J.V. Lee, M.D., Department of Psychiatry, Tulane University, Tidewater Bldg/TB53/1440 Canal, New Orleans LA 70112; Jose M. Pena, M.D., Donna M. Mancuso, M.D.

Summary:

Objective: The purpose of this study was to determine how many suicides in Orleans Parish had been seen previously by the Medical Center of New Orleans' (MCLNO) psychiatric service, the demographics of that group, and the nature of the contact.

Methods: The Orleans Parish coroner's office list of suicides for a one-year period was checked against MCLNO's available psychiatric contact records to generate a series of matching cases. A retrospective chart review of this case series was done.

Results: Of 75 suicides reported by the coroner's office 10 (13%) (six males, four females) had been seen at MCLNO, a mean of 12.5±9.4 months (range six days-26 months) before the time of death. Six had been referred for follow-up in the community, and four for inpatient treatment. Given the ethnic breakdown of the 75 parish suicides, there were more black subjects seen at MCLNO than expected (X^2=4.7, p=0.03, df=1).

Conclusions: MCLNO provides a significant psychiatric service to the minority population of this parish. Further study is required to target areas for improvement of the service provided to this population both in the hospital and in the community.

NR31 Monday, May 17, 9:00 a.m.-10:30 a.m.
Suicide in Travis County, Texas (1996-1997)

Siging Li, M.D., Austin State Hospital, 4100 Guadalupe, Austin TX 78751; Beilin Gao, M.D., Lawrence A. Hauser, M.D.

Summary:

Suicide is the eighth leading cause of death in the United States. However, suicide in Travis County, Texas has not been adequately studied. Also, national suicide data on Hispanic race were lacking.

Objective: To describe the occurrence of completed suicide in Travis County; to find suicide risk factors within a framework that will permit a systematic approach to theory testing and prevention.

Method: A total of 159 cases of completed suicides was collected from the Texas medical examiner (1996-97); data were analyzed with Chi-square test.

Results: 1) Suicide rate 28.9% in Caucasians, 10.9% in Hispanics, 8.4% in blacks. 2) The suicide rate was 33.1% in males, 12.1% in females. There is no significance difference between black male and female rates. 3) The rate was 53.1% in those above age 75, following by those aged 45-54 and 35-45, respectively, 48.9% and 31.8%. 4) Gunshot is the most common suicide method, 64.6% in males and 34.1% in females, respectively.

Conclusions: 1) The completed suicide rate of black males in Travis County is significantly lower than the national rate, whereas the white female rate is remarkable higher than the national rate. 2) The completed suicide rate in Hispanics is between those of Caucasians and blacks. 3) The highest suicide rate of using firearms in females in the study is different from most research results in which females were more likely to succeed in committing suicide with overdose or cutting.

NR32 Monday, May 17, 9:00 a.m.-10:30 a.m.
The Clinical Significance of Tricyclics Versus SSRIs in Overdose: A Retrospective Study

Robert C. Stone, D.O., Department of Psychiatry, Scott & White, 2401 South 31st Street, Temple TX 76508; William J. Meek, M.D.

Summary:

Objective: While it is generally accepted that SSRI antidepressants are less toxic in overdose than tricyclic antidepressants, a review of recent literature indicates that some controversy remains about the clinical significance of this difference. The goal of this study was to determine the actual differences, if any, in mortality, morbidity, and financial cost of care for patients who had overdosed on tricyclics and/or SSRI antidepressants.

Method: The sample includes all 160 patients presenting to the emergency department of Scott and White Hospital in Temple, Texas from August 1995 to November 1998, with an overdose that included at least one tricyclic or SSRI. For these patients data were also obtained regarding all additional psychotropic medications taken during the overdose as well as alcohol, salicylates, acetaminophen and ibuprofen. Patients presenting during the most recent 18 months also have complete hospital and ED cost figures.

Results: Initial review of the data reveals a greater rate of hospital admission and rate of ICU admission for tricyclic versus SSRI overdose. Fortunately only one death occurred. Final analysis will allow a more detailed comparison of the two groups, including the cost analysis and the effect of concomitantly ingested substances.

NR33 Monday, May 17, 9:00 a.m.-10:30 a.m.
Elderly Suicidal Behavior in Buenos Aires, Argentina

Guillermo J. Tortora, M.D., Neuroscience, ANA, Ituzaingo 1250, 3A Lanus Este, Buenos Aires 1824, Argentina; Miguel Marquez, M.D., Alicia Sotelo Lago, M.D., Liliana Florio, Ph.D., Ignacio Brusco, M.D., Ronald Falcon, M.D., Claudia Rodriguez, M.D.

Summary:

Introduction: Suicide rates increase with age. The significance of the mid-life crisis is underscored by suicide rates.

Objective: The purpose of this study was to analyze the most prominent characteristics of the profile of elderly suicide completion and compare them with the profile of the elderly suicide attempts

Methods: The epidemiological data that permit the evaluation of the death rates through the legal-medicine autopsies performed at the judicial morgue of the Body of Forensic Physicians of Buenos Aires City, Argentina, during 1994-1997 (n: 11,759 autopsies). To evaluate the suicide attempts we have used a Guide for Forensic Psychiatric Evaluation of Suicidal Behavior (FPESB) in 1,217 patients from a sample of psychiatric experts' opinions obtained in the same years as psychiatric hospitalizations.

Results: From a total of 11,759 autopsies, 14.2% (n: 1,669) corresponded to suicides. The 38% (n: 634) was elderly suicides (range 60-95). We determined the rates by sex (males 64%); marital status (divorced 40%); methods (males: firearms, 48%; females: jumping, 52%); seasonal. (autumn 28%); month (December 11%); place (victim's home 74%) and days of the week (Saturday and Sunday 53%). From 1,217 patients the 13.5% (n: 165) was elderly suicide attempts. To difference of younger people (drug overdose: more 80%) the method used was of high lethality: fire arms, jumping, hanging, poisoning,. etc. 58% of the older people have had medical attention within two months of attempts. The diagnosis of mental health was depressive disorders (74%), anxiety disorders (12%), schizophrenia and other psychotic disorders, (9%), sementia and other cognitive disorders (4%), etc.

Conclusions: From the data obtained, our finding tend to confirm the current statistic that the suicide complete increase with age. In the elderly, suicidal behavior it is frequently noticed a multifactorial etiology composed by loneliness, isolation, physical illness, precarious economical situation, that interacts among each other driving him to depression .

NR34 Monday, May 17, 9:00 a.m.-10:30 a.m. Adolescent Suicides in Buenos Aires and Mendoza, Argentina During 1994-1997

Guillermo J. Tortora, M.D., Neuroscience, ANA, Ituzaingo 1250, 3A Lanus Este, Buenos Aires 1824, Argentina; Benigno Gutierrez, M.D., Graciela Nazar, M.D., Edith M. Serfaty, M.D., Liliana Florio, Ph.D., Alicia Sotelo Lago, M.D., Adriana Portas, M.D.

Summary:

Objective: The purpose of this research was to analyze the intervenient factors in adolescent suicidal behavior so as to determine the danger degree.

Methods: We analyzed the most prominent characteristics of the consummate suicides epidemiological profile and compared them with the suicide attempt profile. Two groups were created in order to collect material, the first one picked up data belonging to 1,675 consummate suicides, occurred in Buenos Aires city during the period 1994-1997 (11,759 autopsies) and 286 suicides in Mendoza city (3,045 autopsies). The second group (suicidal attempts) took a sample of 1,317 cases in Buenos Aires and 1,123 cases of The Carlos Pereyra Psychiatric Hospital ward of Mendoza obtained in the same years as the psychiatric hospitalizations.

Results: The number of consummated suicides relating to adolescent population was 138 (8.2%) in Buenos Aires and 46 (16) in Mendoza. The following variables observed did not show greater differences between both cities: Sex male 65%; Single 79%; Method fire gun 52% (male) and 49% (female). In both cities a low psychopharmacological intoxication percentage was observed which could be considered as a sub- register. In the suicide attempts data is coincident in the both cities: Sex female 72%, Single 67%, Method Overdose 73%, Previous attempts 24%, Psychiatric disorders 93%, High probability of rescue only in 29% of the cases, Family violence 38%, Sex abuse. 23% Family dysfunctions 52%.

Conclusions: The increase in the number of the observed suicides, the risk factors described, the high percentage of psychiatric disorders involved, the depressive synthomatology evaluated, the presence of violent families, the violent display existing, the, personality features appearing in adolescent and the alcohol & drug abuse indicate us that at this moment the adolescent suicidal behavior should be considered as highly risky.

NR35 Monday, May 17, 9:00 a.m.-10:30 a.m. Trends in Psychiatric Hospitalization of Youth: How Do Children and Adolescents Differ?

Ross B. Andelman, M.D., Department of Psychiatry, University of CA at San Fran, 44 Montgomery Street, Ste 1450, San Francisco CA 94104; Donna D. McAlpine, M.A., Kathleen J. Pottick, Ph.D.

Summary:

Objective: To examine utilization of psychiatric inpatient services by youth, contrasting recent trends for children (6-12 years) versus adolescents (13-18 years).

Methods: Weighted data from a national database were used to compare short-stay hospital utilization patterns for youth with first listed psychiatric diagnoses in 1988 and 1994.

Results: Over this period, the proportion of children of all youth utilizing inpatient psychiatric services nearly doubled, from 11% to 21%. The mean length of stay (LOS) decreased from 19 to 11 days (43%) for adolescents and from 24 to 16 days (34%) for children. Medicaid-compensated hospitalizations of youth increased by 37%: in 1994, Medicaid financed nearly 40% of these services. The proportion of youth with affective disorders increased from less than 30% to 44%, up 48%, as the percentage with substance-related and adjustment disorders declined. The decrement in mean LOS varied by age group as a function of hospital ownership, insurance, and diagnosis.

Conclusions: Though inpatient services for children and adolescents are similarly subject to the dynamics of market forces, the utilization characteristics for children and adolescents differ. As funding for inpatient psychiatric care for youth becomes more precarious, understanding utilization differences will allow better allocation of this scarce resource.

Supported by: APA van Ameringen Health Services Research Scholars Program and by NIMH, funded UCSF Clinical Services Research Training Program (T32MH 1826).

NR36 Monday, May 17, 9:00 a.m.-10:30 a.m. Drugs in Partyland: Patterns of Substance Use at Circuit Parties

Steven J. Lee, M.D., Department of Psychiatry, Columbia University, 1051 Riverside Drive, #97, New York NY 10032; David M. McDowell, M.D., Herbert D. Kleber, M.D.

Summary:

Background: Circuit parties are increasingly popular and visible social events that consist of large groups of usually affluent gay men. They are held in various cities around the world and often occur over several days. There have been anecdotal reports, mostly in the press, of widespread drug use at these events, though systematic studies of such drug use have never been documented. We surveyed people attending such a party about their drug use at the event.

Methods: The authors attended a circuit party and distributed questionnaires. Items consisted of demographics, HIV status, drugs used on the day of the party, and drugs used on a regular basis.

Results: One hundred seventy-three surveys were collected. Respondents were almost exclusively gay men, and the majority was Caucasian (83.4%), employed (90.8%), and highly educated (86.7% with a college or graduate degree): 69.6% self-identified as HIV-negative, 24.6% as HIV-positive. The drugs most commonly used at the party were methylenedioxymethamphetamine (MDMA), ketamine, methamphetamine, and alcohol. The average number of drugs used at the party was 2.4. HIV-positive men were more likely to use alcohol and marijuana regularly and to use benzodiazepines at the party compared with HIV-negative respondents. The average number of drugs regularly used was 2.0

Conclusions: There is a high rate of substance use at circuit parties. While regular drug use was common in respondents, substance use at the party was even greater. HIV status was not associated with significant differences in drug use patterns except for higher use of sedating drugs, such as alcohol, marijuana, and benzodiazepines.

NR37 Monday, May 17, 9:00 a.m.-10:30 a.m.

Carbamazepine for Cocaine Dependence: A Systematic Review

Anelise R. Lima, M.D., Department of Psychiatry, UFPEL, XV de Novembro 1081, Pelotas RS 96015000, Brazil; Mauricio S. Lima, Ph.D., Bernardo G.O. Soares, M.D., Michael Farrell, M.D.

Summary:

Objectives: Cocaine dependence is a substantial public health problem, and pharmacotherapy may be the best and most cost-effective hope for its treatment. In this systematic review, we assessed the value of carbamazepine (CBZ) for such a condition.

Methods: Electronic searches of databases (such as Cochrane Library, EMBASE, and MEDLINE), scan of reference list of relevant articles, and conference abstracts were evaluated. The reviewers extracted the data independently and relative risks, weighted mean difference, and number needed to treat were estimated. Qualitative assessments of the methodology of eligible studies were carried out using validated checklists. Analysis was carried out according to the "intention to treat" principles.

Results: All available data from four randomized controlled trials and 272 patients were included. Dropout rates were high for both groups CBZ (61%) and placebo (69%). Regarding the main efficacy outcome, presence of urine cocaine metabolites, no significant differences were found (RR = 1.05; 95% CI 0.62-1.77). The occurrence of side effects was similar for CBZ and placebo.

Conclusions: There is no randomized evidence supporting the use of CBZ in the treatment of cocaine dependence. Considering the small number of trials and the high number of dropouts, further investigation is needed.

NR38 Monday, May 17, 9:00 a.m.-10:30 a.m.

Characteristics of Heroin Addicts with Brothers Who Are Also Addicts

Dr. Enriqueta Ochoa, Department of Psychiatry, Hospital Ramon Y Cajal, Madrid 28034, Spain; Agustin Madoz-Garpide, Enrique Baca-Garcia, M.D., Antonio Ceverino, Dr. Natividad Vicente

Summary:

Introduction: The use of illegal drugs and the persistence of risk behaviors for the transmission of HIV could be conditioned by certain familiar conditions.

Objective: To establish the role of addict brothers in heroin addiction.

Material and method: Drug addict patients attended at the naltrexone service in the Psychiatry Unit and those who were attended at the consultation-liaison psychiatry in the Infectious Disease Unit were revised, since 1991 until 1997. 1,066 subjects were attended, 748 at the naltrexone service and 318 at the consultation-liaison psychiatry in the Infectious Disease Unit. Patients were divided into two groups: a) they were the only consumers in their family of origin (766) (either they did not have brothers consumers or brothers at all), b) they had brothers/sisters consuming opioids (300).

Results: Characteristics of patients addicted to heroin with brothers /sisters also addicts confronted to those who do not have brothers /sisters consumers are: a higher percentage they are women, they have started to consuming younger; the more frequent way of consume is intravenous (despite the fact that in our country this way is hardly used); and they have higher percentages of seropositivity to the HIV infection.

NR39 Monday, May 17, 9:00 a.m.-10:30 a.m.

Drug Consumption and Psychological Profile in Secondary Students

Pilar A. Saiz, M.D., Department of Psychiatry, University of Oviedo, Julian Claveria No 6-30, Oviedo 33006, Spain; Maria P. Gonzalez, Ph.D., Luis Jimenez, M.D., Juan M. Fernandez, M.D., Celso Iglesias, Ph.D., Julio B. Bobes, M.D.

Summary:

Objectives: Legal drug use prevalence determination and its relationship to psychological profile of teenagers sampled.

Subjects/Method: WHO drug consumption questionnaire, EPQ-A, and Zuckerman Sensation Seeking Scale (SSS) were administered to 816 secondary students from Langreo (Spain) [mean age= 15.907 (1.370)].

Results: Lifetime prevalence. alcohol: 84.3%. tobacco: 61.0% (females showed higher life time alcohol prevalence: 87.5% vs. 81.2%. p= .0169). Age-first use alcohol: 13.456 (2.468), tobacco: 13.524 (2.056) (males start alcohol use early 12.958 (2.729) vs. 13.939 (2.077), p=.000]. Male legal drug consumers score higher than non-consumers on EPQ-E, and all SSS subscales ($p < .05$). Female legal drug consumers score higher on EPQ-N. EPQ-E, BEX, and DES subscales of SSS.($p < .05$).

Conclusions: High prevalence of legal drug consumption. Said consumers show a higher sensation-seeking profile than non-consumers.

NR40 Monday, May 17, 9:00 a.m.-10:30 a.m.

Toxicological and Psychological Profile of MDMA Abusers in Military Conscripts

Pilar A. Saiz, M.D., Department of Psychiatry, University of Oviedo, Julian Claveria No 6-30, Oviedo 33006, Spain; Maria P. Gonzalez, Ph.D., Manuel V. Bousono-Garcia, M.D., Julio B. Bobes, M.D., Una D. McCann, M.D., George A. Ricaurte, Ph.D.

Summary:

Objectives: Describe prevalence MDN4A consumption; toxicolocal, psycholocal profile of 3,407 male conscripts from Asturias (Spain).

Subjects/Method: WHO drug consumption questionnaire, EPQ-A, Zuckerman Sensation Seeking Scale (SSS), and Dupuy PGWB Index administered to conscripts who entered military service during 1995-98 [mean age (SD) = 20.25 (2.53)].

Results: Total sample consumption of MDMA-Lifetime, 11.2%;. previous year: 8.0%; age of first use: 17.39 (2.29). Consumption of illegal drugs - Illegal consumers including MDMA showed significantly higher levels of consumption of all drugs when compared with illegal consumers without MDNLA.

Conclusions: MDMA consumers profile indicates them as high sensation seekers. emotionally instable, and high in psychoticism: see themselves as having poorer general well-being.

NR41 Monday, May 17, 9:00 a.m.-10:30 a.m.

Comorbid Alcoholism and Mania: A More Severe Illness

Laura K. Sherman, M.D., Department of Psychiatry, Washington University, 4940 Children's Place/Box 8134, St. Louis MO 63110; Laura J. Bierut, M.D., Henri Begleiter, M.D., Ray Crowe, M.D., Victor Hesselbrock, Ph.D., John I. Nurnberger, Jr., M.D., Bernice PorJesz, Ph.D.

Summary:

Background: Alcohol dependence and mania occur more often in the same individuals than expected by chance. Furthermore, alcoholism and dependence on other substances frequently occur in the same individual. Using data from the Collaborative Study on the Genetics of Alcoholism (COGA), we compared rates of substance dependence in alcoholics with and without a lifetime history of mania.

Methods: All subjects were interviewed using the Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA). Alcohol dependence, substance dependence, and mania was diagnosed by DSM-III-R criteria. Rates of substance dependence in alcoholics and manic alcoholics were compared.

Results: One thousand tweve probands who met criteria for alcohol dependence were identified; 6.8% of the alcoholics met criteria for a mood disturbance consistent with mania. The manic alcoholics had significantly higher rates of marijuana dependence (56.6% vs. 44.1%), sedative dependence (26.5% vs. 15.2%), stimulant dependence (36.1% vs. 22.9%) and opiate dependence (24.1% vs. 15.2%) in comparison to the non-manic alcoholic probands.

Conclusions: Alcohol dependence complicated by mania is not uncommon. Furthermore, it may be a more severe illness, carrying significantly higher risk of dependence on marijuana, sedatives, stimularits and opiates. Clinicians should take special care to screen alcohol-dependent patients for mood disturbances consistent with mania general.

NR42 Monday, May 17, 9:00 a.m.-10:30 a.m.

Smokeless Tobacco Use Among Addiction Patients

Maria I. Lapid, M.D., Department of Psychiatry, Mayo Clinic, 200 First Street SW, Rochester MN 55905; Lois E. Krahn, M.D., Lisa Cox, Ph.D.

Summary:

Objective: The purpose of this study was to determine the extent of smokeless tobacco use among patients on an addiction unit and to look at treatment methods employed.

Method: A retrospective case study was done using an inpatient addiction unit database of 313 patients treated between January and November 1998, and those who listed "other tobacco" use were examined for demographic information, nicotine treatment method, psychiatric and medical comorbidity, and outcome.

Results: Seven adult inpatients (2%) recorded daily smokeless tobacco use for at least two years at the time of hospitalization. All subjects were males, mean age 38 (ranges 20 to 67), diagnosed with nicotine dependence, and six had concurrent alcohol dependence. Four were treated with nicotine transdermal patches and/or nicotine gum plus education; three did not receive treatment. All abstained from chewing tobacco during their hospitalization; however, two of those who received treatment relapsed on follow-up. No follow-up information was available on three of the subjects.

Conclusion: These results suggest that smokeless tobacco use is more common in males and may be associated with alcohol use. It is likely that more patients than recorded use smokeless tobacco; however, in our clinical experience attention is more frequently given to smoking cigarettes

NR43 Monday, May 17, 9:00 a.m.-10:30 a.m.

Pathological Gambling: Addiction or Obsession

Angela Ibanez, M.D., Department of Psychiatry, Ramon Y Cajal Hospital, Crta Colmenar Km 9, 100, Madrid 28034, Spain; Carlos Blanco-Jerez, M.D., Carlos Govantes, M.D., Jeronimo Saiz-Ruiz, M.D.

Summary:

Objective: To evaluate whether pathological gambling is best understood as a behavoral addiction or as an obsession.

Method: Comprehensive review of the literature to compare the phenomenology, family history, comorbidity, and biochemical markers.

Results: Pathological gamblers experience tolerance, dependence, and withdrawal symptoms but not repetitive egodystonic thoughts (obsessions). They frequently have comorbidity with and family history of substance abuse disorders but not OCD. Response to serotonin challenges is blunted in pathological gambling and elevated in OCD patients.

Conclusion: The available evidence favors the conceptualization of pathological gambling as a behavioral addiction rather than as an obsessive-compulsive spectrum disorder.

NR44 Monday, May 17, 9:00 a.m.-10:30 a.m.

Anxiety and MDDs and the Five-Factor Model of Personality

Oscar J. Bienvenu III, M.D., Department of Psychiatry, Johns Hopkins, 600 N Wolfe Street, Meyer 4-181, Baltimore MD 21287; Gerald Nestadt, M.D., Jack F. Samuels, Ph.D., Gregory Bovasso, Ph.D., Paul T. Costa, Ph.D., Jeffrey Herbst, Ph.D., William Eaton, Ph.D.

Summary:

Objective: To determine relationships between lifetime specific phobia, social phobia, agoraphobia, panic disorder, and major depression, and the five-factor model of personality.

Method: In the Baltimore ECA Follow-up Study, a subsample was selected largely for incident DIS psychopathology. Psychiatrists used the Schedules for Clinical Assessment in Neuropsychiatry to interview 329 subjects who completed the Revised NEO Personality Inventory.

Results: Subjects with and without specific phobia showed no differences in five factor profiles. However, subjects with social phobia, agoraphobia, panic disorder, and major depression scored more than 1/2 standard deviation higher in neuroticism than did those without these disorders. Additionally, subjects with social phobia and agoraphobia scored almost I standard deviation lower in extroversion. No differences were apparent in openness, agreeableness, or conscientiousness. Results were similar when adjusted for lifetime comorbidity of Axis I disorders, using generalized linear models. There was an apparent linear relationship between neuroticism and number of lifetime comorbid anxiety and major depressive disorders.

Conclusions: Though neuroticism was associated with all anxiety and major depressive disorders except specific phobia, introversion was only associated with social phobia and agoraphobia. Though further research is necessary to specify etiologic relationships, clinicians should be aware of the relationship between normal personality traits and these common psychiatric conditions.

This analysis was supported by NIMH grants R01-MH47447, T32-MH14592, and R01-MH50616

NR45 Monday, May 17, 9:00 a.m.-10:30 a.m.
Anxiety Disorders and the Five-Factor Model of Personality

Joseph D. Bleier, B.A., Adult Psyc/Out-Pat.Anx.Pr, No.Shore Univ.Hosp.c/o Lachenmey, 400 Community Drive, Manhasset NY 1103 0; Helit Atar-Greenfield, B.A., Marjan Ghahramanlou, M.A., Regina Vcello, M.A., Carrie Beckstein, M.A., Juliana R. Lachenmeyer, Ph.D.

Summary:

The five factor model (FFM) (Digman 1990; McCare, 1992) a taxonomy of five broad dimensions of personality: neuroticism, extroversion, openness to experience, agreeableness, and conscientiousness was used as a model to describe psychotic disorders (Kentors, et al., 1997), major depression (Bagby, et al., 1995), and personality disorders (Costa & Widiger, 1994). The present study attempts to characterize personality traits in 43 individuals meeting criteria for anxiety disorders using the NEO Personality Inventory (NEO-PI-R; Costa & McCare, 1992). Preliminary results indicate inidividuals with anxiety disorders scored higher (M=113.77; SD=28.11) than the general adult population (M=79. 1; SD=21-2) on the neuroticism scale and lower on the extroversion scale (M=98.81; SD= 18.38 vs. M= 109.4 ;SD= 18.4) and on the openness to action facet of the openness to experience scale (M=14.35; SD=4.06 vs. M=16.4; SD=3.7).These results suggest that people with anxiety disorder experience chronic levels of emotional adjustment, are prone to psychological distress, and display social interactions that are more restricted than in the general population. Further results as well as implications of a personality approach for assessment and treatment will be discussed.

NR46 Monday, May 17, 9:00 a.m.-10:30 a.m.
Comorbidity in Social Phobia

Paolo Castrogiovanni, M.D., Department of Psychiatry, Viale Braeei 1, Siena SI 53100, Italy; Angela Di Muro, M.D., Claudia Pacchierotti, M.D.

Summary:

Psychiatric disorders more frequently associated with social phobia (SP) are panic disorder (PD), major depression (MD), generalized anxiety disorder (GAD), obsessive compulsive disorder (OCD).

We analyzed comorbidity in SP, with regard to psychopathologic implications. Thirty-four outpatients of the Psychiatric Department of Siena with SP (DSM-IV) were studied with the Liebowitz Social Phobia Scale (LSPS), Symptomatology Check List (SCL), and the Buss and Durkee Hostility Inventory (BDHI). Comorbidity was present in 31 patients: 17 PD, 13 MD, seven OCD, seven simple phobia. Also, 23 subjects had a psychiatric familiarity, mostly for anxiety and affective disorders. LSPS results suggest that another diagnosis of comorbidity doesn't interfere with SP symptomatology, because the more feared situations are the same in all groups. The total score of SCL is highest in subjects with SP and PD comorbidity, intermediary in M comorbidity, lowest in OCD comorbidity. All groups show on the BDHI low levels of aggressiveness; patients with SP and OCD show a higher score on the factor guilt. In conclusion, the low number of subjects with "pure SP" in our clinic sample shows that comorbidity frequently leads a subject with SP to a psychiatrist; comorbidity causes a psychopathologic worsening, but it doesn't interfere in SP symptomatology.

NR47 Monday, May 17, 9:00 a.m.-10:30 a.m.
Obsessive-Compulsive Dimensions

Angela Di Muro, M.D., Department of Psychiatry, University, Viale Braee 1, Siena 53100, Italy; Arianna Goracci, M.D., Livia Luccarelli, M.D., Giovanna Pacciani, M.D., Paolo Castrogiovanni, M.D.

Summary:

Obsessive-compulsive disorder (OCD) psychopathology can be present even among disorders independent of OCD. For this reason, the study of specificity and nonspecificity of obsessive-compulsive symptoms seemed interesting among patients with different psychiatric disorders. A total of 144 patients, 48 with unipolar major depression, 48 with panic disorder (PD), 48 with OCD, and 48 healthy controls (aged 15 to 68, 85 males and 107 females) were evaluated with a questionnaire elaborated in our institute, consisting of 90 items specific for different OCD features and 14 dimensions.

Discriminant items for OCD were related to the dimension of "obsessions of contamination contraphobic rituals" and to the dimension of "guilt". Patients with unipolar major depression had as discriminant items those related to the dimensions "insecurity, rituals scaramantic of control, precision, and indecision". Patients with PD and controls didn't show any obsessive-compulsive features. Patients with OCD and unipolar major depression had a similar answer profile for obsessions and compulsions related to the dimensions "guilt-rituals of guilt", "intrusion" and "scaramantic rituals", based essentially on aggression, and for the dimensions of "precision" and "indecision" relative to personality. This would

prove a certain nonspecificity of the psychopatologic features explored from the previously mentioned dimensions.

NR48 Monday, May 17, 9:00 a.m.-10:30 a.m.
Effects of Estrogen on Behavioral Anxiety and Corticotropin Releasing Hormone Messenger Arrival Nucleic Acid - Levels in Rats

David H. Jho, B.A., Department of Psychiatry, Cornell University, 240 West 64th Street, #3D, New York NY 10023; Margaret Altemus, M.D.

Summary:

Objective: Estrogen is known to increase hypothalamic-pituitary-adrenal (HPA) axis responses to stress in rats and humans. The purpose of this study was to determine whether estrogen modifies behavioral as well as HPA axis reactivity to stress and whether CRH mRNA changes correspond to the behavioral and HPA axis effects of estrogen.

Method: Ovariectomized female rats were treated daily with 2ug estradiol or vehicle. Fear conditioning, an animal model of anxiety, was performed by presenting two trials of a 20sec 80db-tone paired with a 0.23mAmp, lmsec footshock and measuring immobility upon later reexposure to the fear-conditioning chamber or tone. CRH mRNA expression after treatment with two days of 2ug or 20ug estradiol was measured using in situ hybridization.

Results: Estrogen treatment produced a reduction in the immobility response to chamber reexposure (context conditioning), but not to tone reexposure (context conditioning). Estrogen also reduced CRH mRNA expression in the PVN at both doses.

Conclusions: The reduction of CRH mRNA in the PVN during estrogen treatment suggests that another secretagogue directs the increased HPA reactivity. In contrast, behavioral reactivity or anxiety is reduced.

NR49 Monday, May 17, 9:00 a.m.-10:30 a.m.
Personality in OCD: A Five-Factor Description

Yung-Mei Leong, M.A., NIH/Bldg 10, Rm 3D-41, NIMH5 9000 Rockville Pike, Bethesda MD 20892; Benjamin D. Greenberg, M.D., David J. Keuler, Ph.D., Gabriela Cora-Locatelli, M.D., Julie I. Lu, B.A., Margaret Altemus, M.D., Dennis L. Murphy, M.D.

Summary

Studies of neuropsychiatric illness are challenged when individuals with heterogeneous pathophysiology are grouped together. Individual differences along well-characterized behavioral dimensions can be used to refine phenotypes. Delineation of more homogeneous phenotypes would be an advance important to genetic studies. We administered the NEO Personality Inventory Revised (NEO) to 67 obsessive-compulsive disorder (OCD) patients (M:F=24:43; age 38.7±11.7). The NEO operationalizes the five-factor model of personality, each factor comprising six facets. Age-corrected analyzes revealed higher Neuroticism ($p<0.001$), lower Extraversion ($p<0.001$), Openness ($p<0.006$), and Conscientiousness ($p<0.002$) in OCD patients vs. the comparison population (M:F=272:185, age 30.2±11.5). The OCD patients displayed elevated scores on all six Neuroticism facets and two Agreeableness facets, lower scores on the Agreeableness trust facet, all six Extraversion facets, two Openness facets, and four Conscientiousness facets. Preliminary analysis revealed no differences between OCD patients with and without associated tic disorders (a subgroup proposed as etiologically distinct) or with and without comorbid obsessive-compulsive personality disorder. Larger patient samples will achieve adequate statistical power for studies of association between personality traits and candidate genes. Large populations will also allow factor analysis of questionnaire data to clarify the dimensional structure of personality in OCD and to search for dimensionally homogeneous OCD patient subgroups.

NR50 Monday, May 17, 9:00 a.m.-10:30 a.m.
PTSD, Memory, and Dissociation

Miguel Marquez, M.D., Department of Psychiatry, Hospital Frances, Migueletes 1326 7A, Buenos Aires 1426, Argentina; Ignacio Brusco, M.D., Guillermo J. Tortora, M.D., Angel Goldfarb, Ph.D.

Summary:

Objective: PTSD has been considered *the prototypical disorder* developed in two nonbiological ways: a severe psychological reaction to a severe environmental stressor. Nevertheless, it is, probably, a specific disorder that develops when the stressor operates inside the central nervous system (CNS) modifies your psychobiology. So PTSD is much more than an anxious reaction, and its psychopathology includes, together with the diagnosis criteria of PTSD, cognitive disturbances, persistent changes of the neuroendocrinological axis, structural modifications of the CNS, functional distortions at psychophysiological and molecular levels, perturbances of the psychological integration and dissociative phenomena. The objective of this study is to investigate memory disturbances of PTSD patients.

Method: We studied 25 patients who met the DSM-IV criteria of PTSD with the Rey Auditory Learning Verbat Test (RALVT).

Results: We found a significant perturbance of the patients, performance at the immediate recall, but surprisingly, they had a significative recovery in the mediate recall (20 minutes) and in the mediate recall with semantic facilitation.

Conclusions: This finding may explain the amnesias, blackouts, wrong recognitions, and other perturbed memories as well as the dissociative phenomenon consecutive to the traumatic experience, and this may be an indicator of the existence of a long-term memory without the short-term memory hippocampal processing.

NR51 Monday, May 17, 9:00 a.m. - 10:30 a.m.
The Spectrum of Social Phobia

Miguel Marquez, M.D., Department of Psychiatry, Hospital Frances, Migueletes 1326 7A, Buenos Aires 1426, Argentina; Guillermo J. Tortora, M.D., Ignacio Brusco, M.D.

Summary:

Objective: The inclusion of categorical methods in the modem classification systems is very useful to identify the prototypical mental disorders. Nevertheless, there are still some problems without solution: the atheoric approach has forgotten the psychopathology, and a gap still remains between the real patient and the profiles provided by the DSM-IV or ICD-10. Some authors put forward the spectrum model with the aim to define further the essential symptoms of each disorder, the subthreshold ones. The objective of this study is to describe a social anxiety spectrum model.

Method: The authors examined 18 patients with diagnoses of social phobia to find elements of the social anxiety spectrum in the sense described above and then compare them with 20 patients with diagnoses of another anxiety disorder and with 20

subjects without diagnoses from Axis I and II.

Results: The social phobia patients are clearly different from both other groups in the core symptoms of social anxiety and other social phobic symptoms and have a low level of assertiveness, high levels of neuroticism and introversion in the Eynsenk-Gray sense, high punishment susceptibility, low self-esteem, excesive concern about the body, social insecurity in childhood, and dependent, depressive, schizoid, and self-defeating personality traits in both inventories, MMPI-2 and MCMI-3.

Conclusions: The spectrum model is a practical and comprehensive way to describe the clinical complexity of a social anxiety. On one hand, there is the addition of some dimensional traits to the categorical model; on the other is that all of the components of the spectrum probably express a unique psychopathology with biopsychosocial bases.

NR52 Monday, May 17, 9:00 a.m.-10:30 a.m. Inositol Augmentation of SSRIs in Treatment-Resistant OCD

Soraya Seedat, M.D., Department of Psychiatry, University Stellenbosch, PO Box 19063, Tygerberg 7505, South Africa; Dan J. Stein, M.D.

Summary:

Background: Inositol has been shown effective in a double-blind, placebo-controlled trial of obsessive-compulsive disorder. However, there are few data on the use of inositol augmentation in treatment-resistant OCD.

Methods: Ten OCD patients who had failed to respond to at least 12 weeks of treatment with SSRIs alone were given inositol 18mg/day as an augmenting agent for and additional four to six weeks. OCD and depression symptoms were assessed using standard scales at two weekly intervals.

Results: Three out of 10 patients were rated as treatment responders to inositol augmentation on the Global Improvement item of the Clinical Global Impression scale (CGI). Inositol augmentation was well tolerated.

Conclusion: Inositol, like other agents used in OCD, may be more likely to succeed in treatment-naive than in treatment-resistant patients. Nevertheless, the use of inositol in OCD does appear to warrant further consideration and study.

NR53 Monday, May 17, 9:00 a.m.-10:30 a.m. Double-Blind Comparison of Sertraline and Imipramine in Patients with Panic Disorder

Jose Benzo, M.D., Alco & Drug Recv. Unit, Mt. Sinai Hospital, 500 Blue Hill Avenue 9th Fl., Hartford CT 06112

Summary:

A 10-week, doubled blind, flexible dose, outpatient study with DSM-IV diagnosis of panic disorder was conducted to evaluate the efficacy and tolerability of sertraline and imipramine. Nineteen patients (10 with imipramine and 9 with sertraline) participated in the study. After a 2-week washout period, patients randomized to sertraline received 25 mg/day for the first two weeks while those who were treated with imipramine received 10 mg/day for the first two days, 20 mg/day for the next 2 days and 25 mg the fifth day until the first week. The dosage of sertraline and imipramine after two and one week respectably were flexible titrated based upon clinical response and tolerability. From the end of the first week, both sertraline and imipramine produced significant reductions in mean on Clinical Global Impression severity of illness and improvement, Sheehan for panic attacks and Hamilton rating for anxiety scales. Not significant differences were noted between groups. Patients taking sertraline reported fewer side effects and there was no desertion for this cause. In this study, sertraline was as effective as imipramine in the treatment of patients with panic disorder but the former appears to be better tolerated.

NR54 Monday, May 17, 9:00 a.m.-10:30 a.m. Somatization in a Sample of Panic and OCD Outpatients

Marjan Ghahramanlou, M.A., Northshore University Hospital, 400 Community Drive, Manhasset NY 11030

Summary:

Recent studies have reported that somatic symptoms and amplification of bodily sensations are often related to a patient's depression and anxiety level (Spinhoven & Van Der Does, 1997). The aim of the present study was to 1) examine the extent of somatization in a sample of Panic Disorder (PD) and obsessive-compulsive disorder (OCD) patients as well as 2) evaluate the relationship between a patient's reported somatization level and other symptoms as measured by the Symptom Checklist-90-R (SCL-90-R; Derogatis, 1977). Preliminary data on 14 PD and 26 OCD outpatients indicate a significant difference in reported somatization between these groups ($t=3.061$, $df= 13$, $p<.01$). As expected, PD patients ($M= 1.31$, $SD =0.77$) reported a higher level of somatization than OCD patients ($M = 0.66$, $SD = 0.69$). Furthermore, within the PD sample, somatization correlated highly with depression ($r = 0.82$), paranoid ideation ($r = 0.78$), and general distress ($r = 0.90$). Within the OCD sample, somatization correlated with obsessive-compulsive ($r = 0.77$) and anxiety ($r = 0.79$) dimensions of SCL-90-R. Clinical implications of these findings in the context of differential behavioral treatment of somatization in panic and OCD patients will be discussed.

NR55 Monday, May 17, 9:00 a.m.-10:30 a.m. Medication-Induced Complications Occurring During the Treatment of Geriatric Bipolar Patients

Janet C. Conney, M.D., Department of Psychiatry, UCLA Neuropsychiatry, 760 Westwood Plaza, C8-846, Los Angeles CA 90024

Summary:

Introduction: Agitation and impulsivity are common symptoms in geriatric nursing home patients and a significant problem occurring in 60%-80% of geriatric patients with a DSM-IV diagnosis of bipolar affective disorder. Efficacious treatment of bipolar affective disorder occurs with lithium carbonate and divalproex sodium and requires long-term use and safety. Tolerability of lithium and divalproex was examined in a subset of geriatric patients residing in a skilled nursing facility.

Methods: Longitudinal observations of 57 patients, 65 years of age and older, receiving either lithium (N=23) or divalproex (N=34) for the treatment of bipolar affective disorder were compiled. All of these patients were residents of the skilled nursing facility at the Veteran's Affairs Medical Center in Long Beach, California. Data collected from their medical records included medication-associated clinical sequelae such as dehydration, renal function, gastrointestinal disturbances, and cognitive impairment.

Results: Significant clinical sequelae of toxic lithium levels requiring stabilization in a more acute setting were required in 18 of the 23 patients. Average toxic, lithium level was 2.1 meq/l with a range of 1.4 to 3.9 meq/l. No sequelae warranting this same level of acute intervention were identified in the divalproex group. Mean divalproex level was 81 ug/ml with a range of 48 to 102 ug/ml. Fourteen patients were eventually tapered off lithium and titrated onto divalproex for improved tolerability of medication. No divalproex patients were subsequently switched to lithium.

Conclusion: Tolerability of medication is an important clinical factor and paramount to symptom-free maintenance of patients with bipolar affective disorder. Geriatric patients tend to develop clinically significant complications on lithium that warrants acute intervention and discontinuation of the drug.

NR56 Monday, May 17, 9:00 a.m.-10:30 a.m.
Which Elderly Patients Relapse Quickly After ECT?

Robert M. Davis, M.D., Department of Psychiatry, Penn State, PO Box 850, Hershey PA 17033; Paul A. Kettl, M.D.

Summary:

Objective: The objective of this study was to identify potential predictors of the need for additional ECT within 12 months of a successful series of ECT in geriatric patients.

Methods: Patient charts for all of the patients over the age of 60 years (n= 104) receiving ECT through the inpatient geriatric psychiatry unit between 1991-1996 were reviewed for a large number of relevant data items. Clinical correlates between patients requiring additional ECT within 12 months of a previous effective ECT series and patients not requiring additional ECT were analyzed by t-tests and chi-squares by using the Statistical Package for Social Sciences (SPSS). Differences at the 0.05 level of statistical significance were considered significant.

Results: Only two clinical correlates were determined to be statistically significant. Patients requiring an additional series of ECT within one year had mean number of 4.5 previous psychiatric hospitalizations, while patients not requiring additional ECT had a mean number of 2.7 previous hospitalizations (p=0.001). Patients requiring additional ECT also required a mean of 8.4 ECT sessions for an adequate initial ECT series, while patients not requiring additional ECT only required 6.3 sessions (p=0.031).

Conclusion: Increased numbers of psychiatric hospitalizations and increased numbers of ECT sessions required for an initial successful series of ECT are potential predictors of the need for additional ECT within one year of treatment in elderly patients.

NR57 Monday, May 17, 9:00 a.m.-10:30 a.m.
ECT in the Elderly: Does Age Affect Outcome?

Robert M. Davis, M.D., Department of Psychiatry, Penn State, PO Box 850, Hershey PA 17033; Paul A. Kettl, M.D.

Summary:

Objective: The objective of this study was to determine if age affects ECT outcome among elderly patients receiving ECT.

Methods: Patient charts for 87 consecutive inpatients receiving ECT between 1991-1996 over the age of 60 years were reviewed for their condition upon discharge. Ages ranged from 60 to 89. Condition upon discharge was determined by patient assessment of mood into the following categories accompanied by percentage of the total in parentheses: "worse" (0%); "no change" (3%); "improved" (59%); or "back to old self" (38%). Twenty-six patients were between 60 and 69 years old, 40 patients were between 70 and 79 years old, and 21 patients were between 80 and 89 years old. Age-related groupings were then compared with condition upon discharge by using the Statistical Package for Social Sciences (SPSS) for a Pearson chi-square analysis.

Results: Patients in the 80-89 grouping were statistically less likely to be in the "back to old self" category ($p<0.001$) and were statistically more likely to be in the "improved" category ($p=0.001$). Patients in the 60-69 grouping were statistically under-represented in the "improved" category ($p<0.001$) with increased representation in "back to old self".

Conclusion: While all elderly populations clearly improve with ECT, patients over 80 years old may not show the same level of improvement as in younger elderly patients.

NR58 Monday, May 17, 9:00 a.m.-10:30 a.m.
Psychiatric Assessment of a Nursing Home Population Using Audio-Visual Telecommunication

Phillip M. Grob, M.D., Department of Psychiatry, University of Maryland, 701 West Pratt Street, Baltimore MD 21201; Daniel Weintraub, M.D., David A. Sayles, M.D., Allen Raskin, Paul E. Ruskin, M.D.

Summary:

The purpose of this study was to demonstrate that psychiatric assessment of nursing home residents can be reliably carried out remotely via telecommunications. Twenty-seven nursing home residents each had two interviews consisting of the following three rating scales: 1) The Mini-Mental State Exam (MMSE), 2) the Geriatric Depression Scale (GDS), 3) the Brief Psychiatric Rating Scale (BPRS). The interviews were conducted by three trained psychiatrists, each of whom interviewed 2/3 of the subjects. Subjects were sequentially assigned to have either two in-person interviews ("In-person" group), or one in-person and one remote interview via telecommunication ("Remote" group). Inter-rater reliability was calculated separately for each condition ("In-person" vs. "Remote" group) for each of the three rating scales.

Intra-class correlations on the MMSE were .83 for the "In-person" Group, and .95 for the Remote group. On the GDS. it was .86 for the "In-Person" group, and .82 for the "Remote" group. Finally, on the BPRS it was .49-for the "In-person" group, and .81 for the "Remote" group. There was no statistically significant difference in intra-class correlation on any of the three scales for the "Remote" compared with the "In-person" group, indicating that nursing home residents can be reliably assessed remotely via telecommunication.

Supported by the Veterans Administration.

NR59 Monday, May 17, 9:00 a.m.-10:30 a.m.
Is There an Association Between Shortening Length of Stay and Readmission Rate on a Psychogeriatric Unit?

Oscar R. Heeren, M.D., Department of Psychiatry, University of Maryland, 701 West Pratt Street, 4th Flr, Baltimore MD 21201; Lisa B. Dixon, M.D., William T. Regenold, M.D.

Summary:

Objective: The study examined whether there is an association between decreasing length of stay and readmission rate on a psychogeriatric unit.

Method: Records were reviewed for all the admissions to a psychogeriatric unit from January 1993 to December 1997. Data

were collected on all the patients who were readmitted within six months of a previous discharge date, including length of stay, diagnosis, disposition, and demographics for both admissions. Cases were designated early readmission if they came back to the unit within 30 days, and late readmission if they came back between 30 days and six months after the previous discharge date.

Results: The average length of stay for the initial admission significantly decreased from 32.9 days (SD+/-15.16) in 1993, to 10.2 days (SD+/-7.43) in 1997 ($p<0.0001$). At the same time, the early readmissions significantly more than doubled, increasing from 5.6% in 1993 to 12.4% in 1997 ($p < 0.05$). There were no differences for the late readmissions (11.3% in 1993 vs. 11.4% in 1997). The early readmissions had statistically significant shorter initial lengths of stay than the late readmissions 13.2 days (SD+/-9.49) vs. 16.8 days (SD+/-13.36), $p<0.05$. There was also a significant increase in the number of patients who were discharged to the geriatric day hospital over those years, 20.8% in 1993 vs. 53.4% in 1997 ($p < 0.005$).

Discussion: Although it is difficult to demonstrate causality, these findings suggest an association between shorter length of stay and an increase in early, but not late, readmissions to the psychogeriatric unit. The fact that the inpatient referrals to the geriatric day hospital more than doubled in that same time span suggests that this population is requiring more intensive outpatient treatment after discharge.

NR60 Monday, May 17, 9:00 a.m.-10:30 a.m.
Age Effects of Substance Abuse in Inpatients

Prasad V. Kondapavuluru, M.D., Department of Psychiatry, University of Maryland, 6812 Maple Leaf Court, Apt 201, Baltimore MD 21209-1856; Anthony F. Lehman, M.D., Allen Raskin, Paul E. Ruskin, M.D.

Summary:

A total of 511 patients from two psychiatric hospitals and one 28-day drug treatment program were included. This sample was divided into those under age 50 (476) and those 50 and older (35). Patients were administered the Addiction Severity Index. On the alcohol variables the younger group had a higher incidence of alcohol use in the past 30 days, but as one might expect, the older patients had been alcohol users for more years than the younger patients. On the drug abuse variables, the younger group scored higher on the drug composite score than did the older group, indicating a wider use of different drugs than the 50 and older patients. They also admitted to more drug problems in the previous 30 days and were more interested in entering a drug treatment program than were the older group.

These data indicate that substance abuse in inpatients becomes less acute and there is less interest in entering a treatment program in the older patient. Hence, more attention should be focused on the younger patients. There is one caveat to this recommendation. Older patients indicated they were more preoccupied with suicide during their lifetimes, so screening for depression and suicidal ideation in these patients is recommended.

NR61 Monday, May 17, 9:00 a.m.-10:30 a.m.
Quality-of-Life Patterns in Elderly Inpatient Populations

Popuri M. Krishna, M.D., Geriatric Psychiatry, VA Hospital, 10 North Greene Street, Baltimore MD 21078; Anthony F. Lehman, M.D., Alan Raskin, Ph.D., Paul E. Ruskin, M.D.

Summary:

A total of 511 patients from two psychiatric hospitals and one 28-day drug treatment program were included. This sample was divided into those under age 50 (476) and those 50 and older (35). Patients were administered the Quality Of Life Index.

Examination of composite scores, the summation of four to 10 variables, revealed significant differences on six of 18 scores. The older patients had more financial support, were less likely to be homeless, had higher satisfaction with leisure activities, more frequent social relationships, and more contact with physicians and allied health professionals. Younger patients reported greater legal problems during arrests.

Older inpatients with a history of substance abuse and/or a psychiatric illness appear to have a more stable quality of life than their younger counterparts. Time appears to moderate the interpersonal problems characteristic of this group. However. the older patients make greater use of health delivery services. In this context perhaps we need to pay greater attention to the service planning for the younger patients.

NR62 Monday, May 17, 9:00 a.m.-10:30 a.m.
Longitudinal Validation of an Instrument That Measures Time Spent Caregiving for Patients with Alzheimer's Disease

Deborah B. Marin, M.D., Department of Psychiatry, Mt. Sinai Hospital, 1 Gustave Levy Place, New York NY 10029; Micheline Dugue, M.D., James Schmeidler, Ph.D., Kenneth L. Davis, M.D.

Summary:

Introduction: Family caregivers spend substantial time and expense caring for their relatives with Alzheimer's disease (AD). This prospective study investigated how time spent caregiving correlates with illness severity, as measured by the Mini Mental State Exam, the Alzheimer's Disease Assessment Scale, and the Physical Self-Maintenance Scale.

Methods: Subjects (n = 44) had probable AD and resided with a caregiver. Time spent caregiving was measured with the Caregiver Activity Survey (CAS; see table below). Assessments were conducted every six months for $1\frac{1}{2}$ years.

Results: The CAS correlated ($p < .01$) with ADAS (r=.46), MMSE (r = -.44), and PSMS (r =. 56) scores at baseline, and at all subsequent visits. Over time (with visits pooled), the correlations remained significant.

CAS Item	ADAS-COG	MMSE	PSMS
Communication	-.42***	.39**	-.26*
Transportation	.09	-.08	-.10
Dressing	.44***	-.39**	.32**
Eating	.49***	-.45***	.32**
Appearance	.61***	-.64***	.63***
Supervision	.41***	-.47***	.45***
CAS total	.26*	-.31*	.28*

$p < .05$; ** $p < .01$; *** $p < .001$

Conclusion: Time spent caregiving correlates cross-sectionally and longitudinally with AD severity. With illness progression, less time is spent in verbal communication and more time is spent aiding with basic activities of daily living. Caregiver time could be used to measure the impact of interventions for AD.

NR63 Monday, May 17, 9:00 a.m.-10:30 a.m.

Prevalence and Usage of Benzodiazepines in Frail, Home-Bound Elderly

Maria A. Umbert, M.D., Department of Psychiatry, University of Miami, 5470 SW 17th Street, Plantation FL 33317; Jairo Fernandez, M.D., Maria D.D. Llorente, M.D., Michael A. Silverman, M.D., Adam G. Golden, M.D., Scott Barnett, Ph.D., Kamal Hamdan, M.D.

Summary:

Objective: Benzodiazepines (BZD) are often prescribed to older adults. Little is known about the use of BZD in frail elderly, yet, they are the most likely to sustain an adverse consequence, such as fractures. This study seeks to determine the prevalence and appropriateness of BZD use in this group.

Methods: A randomized sample of 744 patients (179 men, 565 women) was selected from 2100 health maintenance organization enrollees. All subjects were 60 or older and met the financial/functional criteria for nursing home placement under Florida Medicaid laws, but resided in the community. Computerized pharmacy records were reviewed for March 1997. Inappropriate BZD use was defined as: 1) any long-acting agent. 2) dose greater than l5mg/day temazepam equivalent (TE); 3). daily use >21 days.

Results: BZD prevalences by age were: 60-79, 38.7% (n=98); 80-99, 41.7% (n=202); 68 patients (22.6%) were on long-acting BZD. Mean dosages in TE by age were: 60-79, 24 mg/day; 80-99, 32 mg/day. All BZD prescriptions were maintenance.

Conclusions: (1) A disturbingly high prevalence (40.3%) of BZD prescriptions are filled by debilitated elderly. (2) BZD are inappropriately prescribed to this population. (3) A need exists for psychoeducation and development of clinical guidelines for the appropriate use of BZD.

NR64 Monday, May 17, 9:00 a.m.-10:30 a.m.

Tolerability and Efficacy of Atypical Antipsychotics in Male Geriatric Inpatients

Swapna K. Verma, M.D., Department of Psychiatry, Baylor College, One Baylor Plaza, Houston TX 77030; Claudia A. Orengo, M.D., Mark E. Kunik, M.D., Victor Molinari, Ph.D., Danielle Hale, M.S.

Summary:

The atypical antipsychotics are gradually becoming the mainstay of psychosis treatment in the elderly. The present study examines the efficacy of risperidone and olanzapine treatment in 34 matched male patients admitted to a geriatric inpatient unit. The Positive and Negative Syndrome Scale for Schizophrenia (PANSS), the Cohen-Mansfield Agitation Inventory (CMAI), the Rating Scale for Side-Effects, the Extra Pyramidal Rating Scale. and the Mini-Mental State Examination were administered at admission and discharge. Data were analyzed using t-tests to compare the differences between mean scores on these measures between risperidone and olanzapine groups. Results indicate that most of the patients on risperidone or olanzapine improved significantly with regard to less agitation, reduced positive symptoms, and higher global assessment of functioning. No significant differences were detected between the two groups with regard to length of hospitalization, or reduction in scores on the PANSS or CMAL. Both medications were equally well tolerated. Both risperidone and olanzapine appear to be well tolerated and equally efficacious in the treatment of late-life psychoses and behavioral disturbances in elderly demented patients.

NR65 Monday, May 17, 9:00 a.m.-10:30 a.m.

Maternal Postpartum Depression: Effects on Infants' Neuroendocrine Stress Reactions

Yolanda P. Graham, M.D., Department of Psychiatry, Emory University, 1639 Pierce Drive, Ste 4000, Atlanta GA 30322; Sherryl H. Goodman, Ph.D., Zachary N. Stowe, M.D., Paul Plotsky, Michelle Robbins, M.S., Charles B. Nemeroff, M.D.

Summary:

Alterations in hypothalamic-pituitary-adrenal (HPA) axis activity have been well documented in adults suffering from major depression. Approximately 10%-20% of women suffer from postpartum depression. Several longitudinal studies have documented alterations in children's behavior, as early as infancy, as a result of exposure to maternal depression and have shown that these changes persist beyond the mothers' recovery (Goodman & Gotlib). There is a paucity of data on neuroendocrine changes in human infants exposed to maternal postpartum depression; however, HPA axis alterations have been demonstrated in laboratory animals who as infants were exposed to varying periods of maternal separation (Heim, et. al., 1997). Furthermore, these alterations have been shown to persist into adulthood. Does postpartum depression alter the infant's HPA axis, thereby rendering the infant vulnerable to future life stressors?

In the current study mothers' postpartum depression is being evaluated for its potential as an adverse event for infants by precipitating changes in HPA axis functioning. Further, infants were followed over the course of the mother's treatment for depression to in order to explore whether mothers' recovery might be associated with changes in the infants' stress reactivity. Data will be presented on 17 infants of depressed mothers and 26 infants of nondepressed mothers who were followed over a 12-month period at three-month intervals.

Preliminary findings revealed higher mean baseline cortisol levels in depressed mothers and their infants, and only the infants of the depressed mothers demonstrating cortisol elevation after separation prior to treatment.

NR66 Monday, May 17, 9:00 a.m.-10:30 a.m.

Factors Affecting Psychotropic Medication Use in Children with Pervasive Developmental Disorders

Kaan R. Ozbayrak, M.D., Department of Psychiatry, University of Mass Med Center, 55 Lake Avenue North, Worcester MA 01655

Summary:

Objectives: Some children with PDD can be effectively treated with one or two medications, while others need several medication trials and combinations. This study intends to look at what factors differentiate these two groups of children with PDD.

Method: Families of children with PDD were invited to fill out a survey over the Internet and 52 surveys were included in the study. Children who were exposed to three or more medication trials were grouped and compared with the others in terms of their demographics; education, family, abuse and treatment histories; associated psychiatric symptoms; peer relationships, and comorbid Disruptive Behavior Disorders (DBD).

Results: 46.2% of the sample were exposed to three or more psychotropic medications. This group differed significantly from the rest of the sample in terms of their older age; presenting more frequently with obsessive-compulsive, depressive and verbal-aggressive symptoms and DBD. This group also had more difficulty in keeping friends. Family, education, treatment and abuse histories, and sex did not differ among the two groups.

Conclusions: A sub-group of older PDD children with obsessive-compulsive, depressive, or verbal-aggressive symptoms and/or comorbid DBD may require more intensive psychopharmacologic treatments than the others.

NR67 Monday, May 17, 9:00 a.m.-10:30 a.m. Institutionalized Children in East Asia

Constance M. Chen, M.P.H., Department of Psychiatry, Stanford Medical School, Rains 14E/704 Campus Drive, Stanford CA 94305; Yueqin Huang, M.D., Lynne C. Huffman, M.D., Liming Lee, M.D., David Spiegel, M.D.

Summary:

This study looks at the effects of psychosocial support on preschool child development. Data are presented from a historical cohort study of 40 institutionalized and 40 home-reared children between the ages of 3-6 years who are matched for age and sex. Length of time in institution, cumulative number of caregivers, and age are correlated with growth parameters and performance on the Denver Developmental Screening Test (DDST). Approximately 2000 samples of salivary cortisol, collected over periods of two days, are used to examine differences in diurnal rhythms and are correlated against a stressor and the DDST. Additional observational data consisting of 400 children's drawings and 55 hours of videotape reflecting temperamental and behavioral style are examined in conjunction with the psychophysiological measures. Human figure drawings and kinetic environment drawings are used to examine the child's assessment of self and environment. Episodes from the preschool version of the Laboratory Temperament Assessment Battery (Lab-TAB) are used to measure variation in emotional expression. A mini-ethnography of the children and their interactions with the community around them at home or in the institution is used to provide cultural context.

Funding sources: Ted and Marian Chen; Stanford Medical Student Traveling Scholars Program; Katharine McCormick Travel Fund for Women.

NR68 Monday, May 17, 9:00 a.m.-10:30 a.m. Changes in Autonomic Regulation with Age

Cathryn A. Galanter, M.D., Department of Psychiatry, Columbia NYSPI 255 West 14th Street, #4D, New York NY 10011; Gail Wasserman, Ph.D., Richard P. Sloan, Ph.D., Daniel S. Pine, M.D.

Summary:

Objective: There is ongoing debate surrounding the possibility that developmental changes in the cardiovascular system impact on risks associated with psychopharmacological interventions. Children may be more vulnerable to adverse cardiac events due to immaturity in autonomic control of the heart. These changes are incompletely understood and are characterized in the current study.

Method: A consecutive series of 70 boys, aged 6 to 14, was recruited from a high-risk sample. Developmental variation in the autonomic nervous system was evaluated by assessing heart period variability, pulse, and blood pressure in responses to a standard orthostatic tilt test.

Results: Increased age correlated significantly with greater heart rate and diastolic blood pressure responses to tilt. However, heart period variability at rest and in response to tilt were not significantly associated with age. Additionally, boys with a family history of hypertension had a significantly greater blood pressure response to tilt.

Conclusions: These findings suggest that developmental changes in the sympathetic nervous system, as reflected by changes of pulse and blood pressure response to tilt with age, occur across this age range. In light of this, more research is needed on the relative cardiac risks of various psychotropic medications in children and adolescents as opposed to adults.

Supported by NIMH Research Training Grant MH-16432: NIMH Grant MH-41778; NIMH Center Grant MH-43878 to the Center to Study Youth Anxiety, Suicide, and Depression. PHS grant MH-30906, MHCRC-New York State Psychiatric Institute, Scientist Development Award for Clinicians MH-01391 (to Dr. Pine), and the Leon Lowenstein Center for the Study and Prevention of Disruptive Behavior at New York State Psychiatric Institute.

NR69 Monday, May 17, 9:00 a.m.-10:30 a.m. Desipramine: Age Changes Differing Degrees of Side Effects and Vital Signs

Cathryn A. Galanter, M.D., Department of Psychiatry, Columbia NYSPI, 255 West 14th Street, #4D, New York NY 10011; Carina Bilich, B.A., B. Timothy Walsh, M.D.

Summary:

Objective: Studies have addressed children's and adolescents' clinical response to tricyclic antidepressants and how it varies from that of adults, but there is limited data on subjective side effects and changes in vital signs that tricyclic antidepressants produce in young people. This study compares these side effects in children, adolescents, and adults.

Method: Data from three trials of desipramine were combined to produce a group of 148 subjects, aged 7 to 66. Standing and supine pulse and systolic and diastolic blood pressure were measured at baseline and when patients were receiving desipramine. Patients were asked to rank subjective side effects.

Results: Younger patients had a significantly lower mean score for constipation, blurry vision, and dry mouth, but a higher score for irritability. There were a number of significant differences between the younger and older patients in pulse and blood pressure and in the changes in those vital signs with desipramine.

Conclusions: Treatment with desipramine results in differing degrees of subjective side effects and changes in vital signs across the life cycle. While the causes of these variations are unclear, it is possible that they are due to developmental changes in the cardiovascular and autonomic nervous systems.

NR70 Monday, May 17, 9:00 a.m.-10:30 a.m. The Link Between Autistic Spectrum Disorders and Parental Occupation

H. Florence Kim, M.D., Department of Psychiatry, Baylor College of Medicine, One Baylor Plaza, Houston TX 77030; Sherry L. Sellers, M.D., Carmen Dickerson, L.M.S.W., E. O'Brian Smith, Ph.D., Geraldine S. Wilson, M.D.

Summary:

Background: Increasing attention has focused on the characteristics of parents of autistic children and whether they, like their children, are more likely to have impaired social interactions, poor communication skills, and a higher incidence of repetitive or obsessional traits. Some studies suggest that the pattern of these characteristics in the parents of autistic spectrum children may represent a milder phenotypic expression of autism. Some investigators have observed a possible overrepresentation of

engineers among the fathers and grandfathers of autistic children.

Objectives: This study was undertaken to determine if a higher proportion of parents of autistic spectrum patients have occupations that are nonverbal in nature, requiring less face-to-face social contact and more technical orientation compared with the parents of nonautistic children.

Subjects: One hundred children with a diagnosis of autism/PDD, evaluated at the Meyer Developmental Center, Baylor College of Medicine, compared with a control group of 100 nonautistic children.

Methods: Data were collected via retrospective chart review. Parameters included parents' occupations and education level. Chi square analysis and logistic regression were utilized.

Results: Thirty-six percent of autistic children had at least one parent with a technical/engineering occupation compared with 33% of nonautistic controls. The odds ratio of an autistic child having a parent with a technical/engineering occupation was only slightly higher than that of a nonautistic child with the same [odds ratio 1.16, Chi square analysis p = 0.68]. Education levels of both parents were similar between the study population and control group and were not significant predictor variables.

Conclusions: In this study, autistic children are not more likely to have parents who have technical, nonsocial, or nonverbal occupations than nonautistic children. However, additional investigation of behavioral characteristics in extended family members is warranted.

NR71 Monday, May 17, 9:00 a.m.-10:30 a.m. Functional Impairment in Chronic Obstructive Pulmonary Disease Patients: The Impact of Anxiety and Depression

H. Florence Kim, M.D., Department of Psychiatry, Baylor College of Medicine, One Baylor Plaza, Houston TX 77030; Mark E. Kunik, M.D., Victor Molinari, Ph.D., Stephany L. Hillman, M.Ed., Suleman Lalani, M.D., Claudia A. Orengo, M.D., Sheila Goodnight-White, M.D.

Summary:

Background: COPD is a prominent cause of disability in the elderly. Recent literature has shown that anxiety and depression may contribute more to functional disability than does chronic illness and result in increased utilization of health care resources and medical expenditures. The objective of this study was to examine the relationship between functional status and comorbid anxiety and depression as well as the relationship between utilization of health care resources and psychopathology in elderly patients with COPD.

Methods: Forty-three elderly male veteran patients with COPD completed measures including the SF-36 to assess functional status, the GDS to measure depressive symptoms, the BAI to measure anxiety symptoms, the MMSE to assess cognitive status, the MCIRS to assess medical burden, and a pulmonary function test (FEVI) to measure COPD severity. Hierarchical regression models were constructed to explore the contribution of these variables to the dependent variables of functional impairment and utilization of medical resources.

Results: Anxiety and depression together contributed significantly to the overall variance in functional status of COPD patients, above and beyond medical burden and COPD severity, as measured by the eight scales of the SF-36 [R2 change 0.20-0.64; all p's<0.011]. Surprisingly, medical burden and COPD severity did not contribute significantly to overall variance in functional status. Utilization of outpatient health care resources was significantly associated with COPD severity and medical burden, but not anxiety and depression. Few patients were receiving any treatment for anxiety or depression.

Interpretation: Our study provides strong evidence that anxiety and depression contribute significantly to the functional status of COPD patients. The results lend further support for routine screening and treatment of anxiety and depression in elderly COPD patients by primary care providers.

This research has been funded by a grant from the VA Rehabilitation, Research and Development Center for Excellence on Healthy Aging with Disabilities.

NR72 Monday, May 17, 9:00 a.m.-10:30 a.m. Behavioral Problems in Adolescence

Siham Muntasser, M.D., Department of Psychiatry, Tulane University/De Paul Hosp, 1040 Calhoun Street, New Orleans LA 70118; Carrie Wiesenmeyer, B.A., Lee Matthews, Ph.D., James W. Lowe, M.D.

Summary:

Behavioral disorders include attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD) and conduct defiant disorder (CD), which share differences and similarities. A great deal of debate appears to be present in the literature regarding the distinction between these different categories.

Objective: The purpose of this study was to examine the relationship between self-reported behavioral problems, mood, and gender in an inpatient adolescent population. We have also examined the relationship between behavioral problems and family environment.

Method: The study included 30 adolescents, males and females, between the ages of 12-17, admitted to an acute inpatient psychiatric unit. Upon admission each patient was subjected to a full clinical evaluation and to a computer, structured clinical interview according to DSM-IV. Each patient was subjected to a series of standardized questionnaires measuring psychopathology.

Results: Our data indicate that behavioral problems are generally more common in males than females. However, in our population, gender differences appear to be less prominent in severe behavioral problems because of the presence of a population of adolescent females with severe behavioral problems. Our study did not indicate any differences related to race in either sex.

Conclusions: Our study indicate that moderate to severe behavioral problems might be more common in adolescent females than previously thought and emphasizes the need for better understanding of this population.

NR73 Monday, May 17, 9:00 a.m.-10:30 a.m. A Descriptive Study of Juvenile Firesetters Seen in a Juvenile Firesetting Program

David E. Walter, D.O., Department of Psychiatry, Maine Medical Center, 216 Vaughan Street, Portland ME 04102; Vaughn Hardesty, Ph.D., Jennifer Dube, B.A.

Summary:

Objective: The goal of this study was to examine child and family characteristics of the firesetters seen in a community-based juvenile firesetting program.

Method: Participants in this study were 205 children seen in the Portland Juvenile Fire Setting Program. Parents completed the CBCL and significant fire and demographic data were obtained.

Results: Children primarily used matches (47%) and lighters (42%) to start their fires. Many children had a previous history of match play (68%) or firesetting (73%), and the number of fires set by an individual child ranged from one to 60. Sixty-seven percent of the families fell into the lower socioeconomic classes. Crises firesetters scored significantly higher than curiosity firesetters on measures of Externalizing. Internalizing and Total Pathology. Delinquent and crisis firesetters had a significantly greater history of firesetting than the curiosity firesetters and they set significantly more fires.

Conclusions: The firesetters seen in this community program mirror the firesetters seen in clinics and inpatient facilities. They are primarily male, set multiple fires, come from lower socioeconomic classes, and evidence significant behavioral problems. The high level of pathology exhibited and the number of fires set clearly indicates the need for mental health professionals to be involved in community fire safety programs.

NR74 Monday, May 17, 9:00 a.m.-10:30 a.m.
A Methodological Study of Screening Childhood Psychopathology

Eun Young Oh, M.D., Department of Psychiatry, Ajou University, San5 Wonchon-Dong, Paldal-Gu, Suwon, Kyunggi-Do 442380, South Korea; Soo Kwon Kim, M.D., Jin Hee Park, B.S., Mi Kyoung Park, R.N.

Summary:

Objective: The purpose of this study was to develop an effective methodological tool that could be used for screening childhood psychopathology in the community by using CBCL information from both parents and teachers.

Method: One thousand one hundred twety-two first-grade elementary school children residing in O'san city (M=539, F=583) participated in this study. Parents were divided into two groups: the educated group (n=383) consisting of those who received parental education prior to the CBCL, and the non-educated group (n=739) consisting of those without parental education. The present study investigated differences in the CBCL mean values of the two parental groups and compared the degree of agreement between teacher-educated parents and teacher-noneducated parents.

Results: 1) CBCL mean value was significantly higher in the educated parental group when compared to the noneducated parental group ($p<0.001$). 2) In evaluating the normal group and the high-risk group of children, parent-teacher agreement in the educated group was significantly higher than that of the noneducated group (kappa= 0.24).

Conclusions: This study shows that parental education may serve as an useful method for increasing the accuracy of information given by parents. The authors suggest that parents should primarily evaluate children's behaviors and emotional states, while teachers re-evaluate only the children who are classified in the high-risk group during the first-stage evaluation.

NR75 Monday, May 17, 9:00 a.m.-10:30 a.m.
Comparison of Drawings by Tibetan and American Children for Indicators of Depression, Anxiety, and Stress

Emily M. Pressley, D.O., Department of Psychiatry, Hershey Medical Center, PO Box 850, Hershey PA 17033; John W. Getz, M.A., Ajanta Goswami, M.D.

Summary:

Analysis of drawings by children has been a useful diagnostic tool in identifying signs of anxiety, depression and stress. We hypothesized that children from different cultures who had been exposed to violence, abuse and stressful events would exhibit common features in their projective drawings. We analyzed the drawings of Tibetan children living in exile in India who had lost or been separated from loved ones and who had been exposed to dangerous circumstances when leaving their homeland. We compared these drawings with those of American children with histories of abuse and neglect. The children ranged in age from 7 to 11.

Common themes that were identified included absence of warmth indicators, inaccessibility and insecurity in drawings of houses; indicators of sadness, anguish, violence, fear and aggression in drawings of faces; indicators of trauma, insecurity, confusion and broken relationships in depiction of trees and indicators of unmet security needs, anxiety, depression, need for affection and feelings of deprivation in drawings of nature. In conclusion, universal themes can be identified in drawings of children exposed to stress and violence indicative of depression, fear, insecurity and mistrust. The artwork of children can be a valuable diagnostic tool transculturally.

NR76 Monday, May 17, 9:00 a.m.-10:30 a.m.
Neurological Soft Signs in Learning Disorder

Man-Kil Seo, M.D., Department of Psychiatry, Samsung Seoul Hospital, 50 Ilwon-Dong, Kangnam-Gu, Seoul 135-710, Korea; Yoo Sook Jung, M.D., Sungdo D. Hong, M.D.

Summary:

Objective : The purposes of this study were to investigate the level of performance of NSS in learning disorder and to find the items that showed the poorer performance in LD patients than control group.

Method : The subjects were 14 patients with learning disorder who fulfilled DSM-IV criteria and 20 normal controls. The patients were composed of patients of LD with or without attention deficit/hyperactive disorder (ADHD). The ranges of age of patients were from 7 to 11. NSS, measured Revised Neurological Examination for Subtle Signs of Denckla (1985) and graphesthesia and astereognosis that were known as a sensitive items for the NSS of Stokman (1985).

Results : LD patients showed poorer performance in the NSS than did the control group, especially in the items of time coordination. Hand pat item of time coordination was especially delayed in the 90% of patients with LD.

Conclusions : We should be measuring the neurological soft signs for evaluating the neurodevelopmental state in LD patients and hand pat item could be used to show the level of performance of NSS in patients.

NR77 Monday, May 17, 9:00 a.m.-10:30 a.m.
Neurodevelopmental Antecedents of Early-Onset Bipolar Affective Disorder

Engilbert Sigurdsson, M.D., Department of Psychiatry, Maudsley Hospital, Denmark Hill, London SE58AZ, England; Eric Fombonne, M.D., Kapil Sayal, M.D., Stuart Checkley, M.D.

Summary:

Neurodevelopmental impairments have been identified as risk factors for early-onset schizophrenia, and affective symptoms have been reported to be more common in children and adoles-

cents with disordered neurodevelopment than in healthy controls. This study tests the hypothesis that early-onset bipolar disorder is associated with neurodevelopmental antecedents. We identified 38 adolescent cases who presented to the Maudsley Hospital in London between 1974 and 1996 (15 female, 23 male; mean age 14.4 years, range 11-18) who met ICD-10 RDC criteria for a manic episode, bipolar disorder or psychotic depression, and 41 controls with depression without psychotic features (25 female, 16 male, mean age 14.2 years, range 11-18). Cases were significantly more likely to have experienced delayed language, social or motor development (unadjusted OR 5.5, 95% CI 1.4-21.6, p=0.01). The point estimate remained robust and significant after potential confounders were adjusted for (adjusted OR 5.9, 95% CI 1.0-34.8, p=0.036). We conclude that compared to early-onset unipolar depression, neurodevelopmental antecedents are overrepresented in early-onset bipolar disorder. The validity of this finding was supported by contemporaneous IQ scores, the cases having significantly lower IQ scores than controls (means 88.8 vs. 105.8, p=0.002), as these scores are not subject to the same potential biases as casenote ratings.

NR78 Monday, May 17, 9:00 a.m.-10:30 a.m.
Consultation-Liaison Psychiatrists' Use of Antidepressants in the Physically Ill

Graeme C. Smith, M.D., Psychological Medicine, Monash University, 246 Clayton Road/Monash Med, Clayton Vic 3168, Australia; David M. Clarke, M.B.B.S., Dennis Handrinos, M.B.B.S., Dean P. McKenzie, M.A.

Summary:

Aims: To describe the pattern of prescription of antidepressants in physically ill general hospital inpatients, and the correlates of such prescription.

Method: Standardized prospective data were collected on 3307 consecutive inpatients referred to the liaison psychiatry service of a general teaching hospital over a four-year period.

Results: Three hundred seventy-two (41%) of the 917 patients with confirmed DSM-IV mood, anxiety or adjustment disorders were prescribed an antidepressant; 40% tricyclics, 35% SSRI's, 11% tetracyclics (mianserin) and 15% MAOI's (mainly moclobemide). The percentage increased significantly over time. This was due to greater use of SSRI's across all age groups and degree of seriousness of illness (p<.001). Factors associated (p<.01) with antidepressant choice included age, chronicity and seriousness of physical illness, current circulatory or respiratory disorder, pregnancy, concurrent antipsychotics, and seriousness of psychiatric illness. Mean age of patients prescribed tricyclics was 50 yrs; for SSRI's and MAOI's it was 60 yrs, and for tetracyclics 74 yrs. Tetracyclics were preferred over SSRI's and MAOI's, and these in turn over tricyclics, in those with higher scores for chronicity of physical illness, and seriousness of illness. MAOI's and tetracyclics were preferred over SSRI's and tricyclics in turn for those with circulatory and respiratory disorders.

Conclusions: Availability of SSRI's was accompanied by a significant increase in the percentage of patients being treated with an antidepressant, including the elderly and those with more serious and chronic physical illness.

NR79 Monday, May 17, 9:00 a.m.-10:30 a.m.
Axis I and Personality Profiles of Oocyte Donors

Gary S. Bruss, Ph.D., Department of Psychiatry, Pennsylvania Hospital, 800 Spruce Street, Philadelphia PA 19107; Abraham Munabi, M.D., Michael Sobel, D.O., Reed D. Goldstein, Ph.D., Howard S. Sudak, M.D., Alan M. Gruenberg, M.D., Jacques P. Barber, Ph.D., Katie Nunno

Summary:

The anonymous donation of oocytes for in-vitro fertilization treatment of infertile couples is increasingly common. Careful prescreening of medical, psychiatric, and psychological functioning is essential in determining the suitability of donor candidates. Little is known about the demographic, psychiatric, and psychological profiling of women who select to volunteer to donate their eggs anonymously.

This report reflects the psychiatric and psychological testing findings of 30 female oocyte donors who were assessed prior to undergoing oocyte retrieval. Axis I diagnoses and family history were derived by structured clinical interview (SADS) by an experienced diagnostician. Donors also completed the MMPI-2, MCMI-2, BDI, BAI, and Hopelessness scale (HS).

The mean age of subjects was 28 years; 77% were employed full-time; 10% were employed part-time; 13% were students; 37% were married; 57% were single; 6% were divorced. The mean level of education was some college education, and 30% had their own children.

Axis I findings: 30% of woman met criteria for an Axis I diagnosis. All but one were in full remission (dysthymic disorder). Four of those with Axis I disorders met past criteria for adjustment disorders only. The remaining five reported diagnoses that included past major depression, psychotic depression, bulimia nervosa, alcohol abuse, and dysthymic disorder.

MMPI-2 findings: The mean validity indices configuration and clinical scale profile fell within normal limits (i.e., no mean scores above a T-score of 65). The average "two point" profile was a "5-4" while the "typical" profile is valid and not clinically elevated, 33% of donors had K-scale elevations above a T-score of 65, suggesting a bias toward attempting to represent themselves too favorably. In addition, 30% of patients scored above a T-score of 65 on the "overcontrolled-hostility" (O-H) supplementary scale. There was an overall absence of severe psychopathology.

MCMI-2 findings: 43% of patients scored in the clinically elevated range (i.e., above a BR score of 75) on the "desirability" scale confirming the response bias noted an the MMPI-2. The three highest mean scale scores were "histrionic" (BR = 75), "narcissistic" (BR = 69), and " compulsive" (BR = 64); 47% and 43% of patients scored above a BR score of 75 on the "histrionic" and "narcissistic" scales, respectively; 33% scored above 75 on the "compulsive" scale. There was an overall absence of severe psychopathology. Mean BDI, BAI, and HS scores were all within normal limits.

The results and utility of this screening procedure will be discussed as will inclusion/exclusion criteria and the need for careful clinical management of a subset of patients with a baseline propensity for affective lability (i.e., elevated histrionic and O-H scores) when treated with potentially mood-altering human menopausal and chorionic gonadatropins (HMG and HCG).

NR80 Monday, May 17, 9:00 a.m.-10:30 a.m.
Depression and Medical Illness in Young Women

Anjali M. Gupta, M.D., Department of Psychiatry, University of Maryland, 22 S Greene Street/PO Box 349, Baltimore MD 21201; Lisa B. Dixon, M.D., Alicia Lucksted, Ph.D.

Summary:

Objectives: The purpose of this study was to determine the association between depression and five different medical con-

ditions including diabetes, hypertension, chest pain, lupus, and thyroid disease.

Method: Using the 3rd National Health and Nutrition Examination Survey (NHANES-3), data were examined from a subsample of 4047 female subjects (aged 17-39) who completed the Diagnostic Interview Schedule (DIS). We assessed the relationship between having a history of depressed mood for longer than two weeks and five medical conditions: diabetes, hypertension, chest pain, lupus, and thyroid disease; in addition, we examined the relationship between current depressive symptoms and the same five medical conditions, while controlling for age and race.

Results: 1890 of 4047 subjects (47%) had a history of depressed mood, which was significantly associated with an increased likelihood of having chest pain (34.1% vs. 19.3% P<.05), hypertension (14-8% vs. 10.4% P<.05), and diabetes (3.60% vs. 2.3% P<.05). Also, 358 of 1277 (28%) had current depression, which was only associated with chest pain.

Conclusion: This study links cardiovascular problems and depression in younger women, a linkage previously established in older, predominantly male samples. More work is needed to understand the direction of the association in younger women.

NR81 Monday, May 17, 9:00 a.m.-10:30 a.m. In-Flight Psychiatric Emergencies

Ken Matsumoto, M.D., Department of Psychiatry, University of Hawaii, 1356 Lusitana Street, 4th Flr, Honolulu HI 96813; Junji Takeshita, M.D., Deborah Goebert, M.S.

Summary:

Overall Educational Objectives: This study examines the incidence and implications of in-flight psychiatric emergencies and identifies pre-, post-, and in-flight psychiatric interventions.

Summary: Although articles have been published regarding in-flight medical emergencies, an extensive literature search did not reveal any information about in-flight psychiatric emergencies. This study seeks to ascertain the incidence of in-flight psychiatric emergencies, their associated factors, and outcomes. All in-flight calls for physician consultation to MedAire, a leading medical resource for airlines, during 1997 were reviewed for psychiatric symptomatology. Of 1375 consultations, 4% were characterized as psychiatric, with the majority of these cases presenting primarily as acute anxiety. Many cases required arrangements for the passenger to be evaluated upon arrival, and three cases required emergency flight diversion and landing. This study suggests that an anxiolytic agent with a rapid onset may be indicated for the on-board medical kit. Implications for psychiatrists with patients who travel will be discussed.

NR82 Monday, May 17, 9:00 a.m.-10:30 a.m. Consultation-Liaison Psychiatry: Introduction to Psychiatry Care

Janet Miller, B.A., Department of Psychiatry, Penn State University, PO Box 850, Hershey PA 17033; Paul A. Kettl, M.D.

Summary:

Introduction: Consultation-liaison psychiatry is an integral part of the psychiatry services provided in a majority of general hospital settings. In this study, we sought to determine how often psychiatric consultation served as the introduction to psychiatric services for a patient, and we studied particular characteristics of this patient population.

Method: Over a one-month period, all psychiatry consults were prospectively examined with regard to each patient's demographic data, psychiatric diagnosis, psychiatric history, and primary medical service. A total of 102 patients were surveyed with an average age of 41.4 years and with 51% of patients being female

Results: For 39.2% of patients, the psychiatry consultation represented their first psychiatric treatment experience. Mood disorders accounted for 51% of diagnoses given to patients overall, with psychotic disorders diagnosed in 13% and cognitive disorders in 10%. Those patients without psychiatric history were not statistically different in terms of age or sex. However, patients without psychiatric history were more likely to be referred if they had a mood disorder (39.5%) or cognitive disorder (21.1%) as well as if their primary medical service was medicine/medicine subspecialty (32.5%) or the emergency department (25%).

Conclusion: Given the results of this study, it appears that the general hospital consultation service represents a window to psychiatric care for a substantial number of patients, particularly those who possess certain characteristics, as outlined in this discussion.

NR83 Monday, May 17, 9:00 a.m.-10:30 a.m. Clinical Evaluation of Nefazodone in Sexual Desire Disorders

Juan C. Romi, M.D., Department of Psychiatry, GCP RA Research, Ituzaingo 1250 3A Lanus Este, Buenos Aires 1824, Argentina; Guillermo J. Tortora, M.D.

Summary:

Objective: To evaluate the effectiveness, safety, and tolerability of nefazodone for treatment of the sexual desire disorders in depressed patients

Method: Forty-nine patients (35 males, 14 females) sexually active adult outpatients with diagnosis of major depression and sexual desire disorders according DSM-IV criteria, entered a 12 week open label, flexible dosing of Nefazodone (300-600 mg). Efficacy assessments included CGI-Improvement, HAM-D (17 items) and a sexual function questionnaire (CSFQM-C) Evaluations were performed on baseline and weeks 1, 2, 4, 8 and 12. Tolerability was assessed using adverse experience forms. All cases were followed up according GCP rules.

Results: Based on analysis of this study, about of 85% of patients who received 12 weeks of nefazodone were considered responders to CGI-Improvement, rated much or very much, significant improvement from baseline in symptoms of depression anxiety, sleep and sexual function were found on the patients self evaluations, beginning at week 1 and continuing total rates while the study progressed. Patients showed rapidly improvement in agitation and somatic anxiety (HAM-D items 9 and 11). Nefazodone was well tolerated

Conclusions: The 85% of evaluable patients who completed 12 weeks of treatment had an objective improvement in genuine or secondary sexual desire disorders. Nefazodone is effective for depressed patients with associated symptoms of anxiety and was well tolerated.

NR84 Monday, May 17, 9:00 a.m.-10:30 a.m. Menopause: Evaluation of the Mood Symptoms in Women with Climateric Syndrome Attending an Outpatient Clinic

Jose C. Appolinario, M.D., Department of Psychiatry, University Fed Rio de Janeiro, Rua Visconde de Piraja 550/2002, Rio de

Janeiro RJ 22410-001, Brazil; Eustachio Nunes, Ph.D., Luis Cezar Povoa, Ph.D., Ricardo Meirelles, M.D., Walmir Coutinho, M.D.

Summary:

Objective: Investigate the relationships between a history of a psychiatric disorder and the presence of psychological symptoms in the climateric syndrome.

Method: Forty-three (43) postmenopausal women aged 45-55 attending a menopause outpatient clinic were selected with the following instruments: the Menopausal Index, the Hamilton Depression Scale (HAM-D), the Hamilton Anxiety Scale, the Schedule for Affective Disorders and Schizophrenia–lifetime version, and the Minnesota Multiphasic Personality Inventory (MMPI). The patients were divided into two groups according to the severity of the depressive symptoms. Group I had patients with HAM-D scores; ≥15 and group II had patients with HAMD-D scores<15.

Results: All patients (22) in group I were suffering from a depressive episode, and a significant number of them (X^2=20.0 - p 0.0001) had a psychiatric history. There was not significant changes in the MMPI profile comparing the two groups.

Conclusion: The appearance of mood symptoms in the climateric syndrome in this population could be associated with a psychiatric history (past mood disorder or other comorbid diagnosis).

NR85 Monday, May 17, 9:00 a.m.-10:30 a.m.

The Cost of Premenstrual Dysphoric Disorder: A Review of the Literature

Adele Zinberg, M.D., Department of Psychiatry, Mt. Sinai Hospital, 1160 Fifth Avenue/Box 1228, New York NY 10029; Stephanie Klein-Stern, M.D.

Summary:

Objectives: This review of the literature attempted to provide an overview of the diagnostic, epidemiologic, and clinical aspects of PMDD and their contribution to the economic burden posed by this disorder.

Methods: This review attempted to calculate economic burden based on three parameters: 1. Direct costs (fees for physician visits, medication cost, etc) 2. Indirect costs (the value of lost productivity, etc, and 3. Morbidity, prevalence, and incidence rates derived from epidemiological studies.

Results: Premenstrual dysphoric disorder affects roughly 3% of women between the ages of 18 and 45. Women between the ages of 18 and 45 represent about 40% of the female population and about 45% of the work force. While specific data on PMDD related direct or indirect cost could not be found, available data allowed us to conjecture that irritability, fatigue, depression, and a multitude of somatic complaints reported by sufferers of this disorder impact on job performance, leading to decreased productivity or absenteeism as well as to considerable direct cost. Several alternative models will be presented estimating the actual economic burden of PMDD.

Conclusions: Given the lack of specific data in the literature, the economic burden estimates derived from this review remain somewhat speculative. It is important that future studies designed to assess prospectively the cost of PMDD should employ structured diagnostic assessments and standardized economic burden assessment measures.

NR86 Monday, May 17, 9:00 a.m.-10:30 a.m.

The Effect of Divalproex Sodium on Viral Load: A Retrospective Review of HIV-Positive Patients with Manic Syndromes

Julie D. Maggi, M.D., Department of Psychiatry, St. Michaels Hospital, 160 Wellesley St E, Ste 334JB, Toronto ON M4Y IJ3, Canada; Mark H. Halman, M.D.

Summary:

Objective: In vitro studies report that valproic acid, a currently accepted standard of treatment of mania in HIV patients, causes an increase in HIV replication. The objective of this study is to examine retrospectively a sample of HIV+ patients with behavioral disturbances for which the treatment of choice is divalproex sodium (DVP, precursor of valproic acid), to determine if DVP causes an increase in HIV replication as measured by viral load.

Method: A chart review identified 15 patients with HIV disease presenting with mania, hypomania, behavioral disturbances complicating HIV dementia, and poorly controlled bipolar disorder. Eleven patients started therapy with DVP, and four patients declined treatment with a mood stabilizer. Viral load was compared before and after mood stabilizer initiation. Following conventional standards, an increase in viral load of 0.5 log was considered clinically meaningful.

Results: Ten of 11 patients on DVP were also receiving antiretroviral therapy. Viral load did not change in six of 10 patients who had measurements between one and three months after DVP initiation. Three of 10 patients did not have viral loads drawn after DVP initiation. Follow-up record was not available for one of 10 patients. The one patient not on antiretroviral therapy had an increase of 0.17 log in viral load at four months after DVP initiation. The four patients not taking DVP were all on antiretroviral therapy; two of four patients remained nondetectable over three to four months, and one patient had an increase of 0.32 log in viral load over three months. Follow-up record was not available for one patient.

Conclusion: These data suggest that in the presence of effective antiretroviral therapy, viral load remains undetectable or not significantly increased after administration of DVP. It is unclear what happens to viral load in the absence of antiretroviral therapy. Further prospective study is required.

NR87 Monday, May 17, 9:00 a.m.-10:30 a.m.

Therapeutic Delirium

Chitra Malur, M.D., Department of Psychiatry, SUNY-Stony Brook, HSC-T10, Stony Brook NY 11794-8101; Max Fink, M.D., Andrew J. Francis, Jr., M.D.

Summary:

Objective: Delirium predicts poor prognosis in hospitalized patients, but incidental delirium in psychiatric treatments (e.g., ECT) is common. We report five cases where delirium proved therapeutic for affective and psychotic symptoms of major mental illness. We also reviewed literature on delirium in psychiatric treatments.

Method: Five inpatients (aged 53-69) with exacerbation of chronic mental illnesses developed delirium from medications (N=4) or electrolyte disturbance (N=1). The deliria were managed conservatively with medication washout or correction of electrolytes. Progress of the patients was noted clinically and summarized.

Results: The clinical signs of delirium persisted for 24-72 hours and included confusion, disorganized speech, sleep-wake cycle

changes, and hallucinations. As the delirium cleared, psychotic and affective symptoms observed pre-delirium improved or resolved. The improvements persisted for one to five months, with lesser doses of medications in two of the cases.

Conclusion: Delirium may produce clinically significant improvement in affective and psychotic symptoms. Historically, some treatments induce an incidental delirium (e.g., ECT, insulin coma). The mechanism of action is unknown, although the emergence of delirium that is therapeutic suggests some pathophysiological aspect of delirium may be beneficial in some cases.

NR88 Monday, May 17, 9:00 a.m.-10:30 a.m.
Natural Killer Cell Activity in Alzheimer's Disease: Relation to Cognitive Impairment

Paolo Prolo, M.D., CNE Branch, NIH-NIMH, 10 Center Dr/Bldg I0/Rm 2D46, Bethesda MD 20892; Rosa G. Masera, M.D., Antonio H. Staurenghi, M.D., Alberto Lazzero, M.D., Giulietta Griot, M.D., M. Luisa Sartori, M.S., Luigi Ravizza, M.D.

Summary:

We evaluated spontaneous NK cell activity of peripheral blood mononuclear cells (PBMC) and *in vitro*, responsiveness to various modulators in 16 outpatients (9 males and 6 females) with Alzheimer's disease (AD), aged 49-78 years. Sixteen elderly healthy age- and sex-matched subjects participated as the first control group. Fifteen young healthy volunteers aged 23-32 years participated as the second control group. Informed consent was obtained from all patients or their next of kin. PBMC preparations were incubated in presence or absence of cortisol or IFN-y or IL-2. Cytotoxicity was assayed by a direct 4h nonradiometric assay, using K562 cells as target. Spontaneous NK cell activity in AD patients was similar to that of age- and sex-matched controls, but significantly higher than young volunteers ($p<0.01$). Cytokine dependent enhancement of cytotoxicity was comparable in AD and young subjects and significantly higher in AD vs. elderly controls ($p<0.05$). A lower degree of cortisol-dependent inhibition was observed in elderly vs. young volunteers; in AD the steroid effect appeared even lower ($p<0.05$), and cortisol-induced cytotoxicity was inversely correlated to cognitive impairment (r: -0.62; $p<0.01$). Other correlations were found between duration of illness and basal cortisol (r: 0.75; $p<0.05$), and between duration of illness and percent increase of IL-2-induced cytotoxicity (r: 0.88; $p<0.01$). Lower cortisol-induced inhibition and enhanced responsiveness to cytokines support the hypothesis that in AD immune function is partially resistant to the effects of glucocorticoids

NR89 Monday, May 17, 9:00 a.m.-10:30 a.m.
Peripheral Benzodiazepine Receptor, Ovarian Steroids and PMS

Robert C. Daly, M.B., Building 10, Room 3N-238, National Inst of Mental Health, 10 Center Drive, Bethesda MD 20892; Peter J. Schmidt, M.D., Candace L. Davis, B.S., Merry A. Danaceau, R.N., David R. Rubinow, M.D.

Summary:

GABA receptor-modifying neurosteroids may play a role in premenstrual syndrome (PMS). The peripheral benzodiazepine receptor (PBR) both regulates the formation of neurosteroids and is, in animals, regulated by ovarian steroids. We examined the effects of gonadal steroids on (PBR) density among 10 women with prospectively confirmed PMS and 10 controls.

Peripheral PBR densities were measured during three pharmacologically controlled conditions: GnRH agonist (leuprolide acetate i.m. 3.75 mg/month) induced hypogonadism, leuprolide acetate plus estradiol (0.1 mg/day estraderm), and leuprolide acetate plus progesterone (progesterone 200mg bid) replacement. Blood samples were obtained after six weeks of leuprolide acetate alone and after three to four weeks of estradiol and progesterone replacement. Lymphocyte PBR densities were assessed with PK-11195 as ligand and were calculated using a six-point Scatchard analysis. No significant hormone-state-related changes in PBR density were observed (ANOVA-R: phase-$F_{2, 32}=1.5$, p=NS), and PBR density did not differ in women with PMS compared with controls across hormonal states (ANOVA-R: F=0.2, p=NS),

Our data do not confirm previous reports of ovarian-steroid-related modulation of PBR in animals, but are consistent with previous reports in normal women. Finally, changes in PBR function do not underlie the differential sensitivity to the mood-destabilizing effects of ovarian steroids in PMS.

NR90 Monday, May 17, 9:00 a.m.-10:30 a.m.
Predictors of Appointment Compliance in an Outpatient Community Mental Health Clinic

Athanasios A. Mihas, M.D., Department of Psychiatry, University of Maryland, 701 West Pratt Street, Baltimore MD 21201; Paul E. Ruskin, M.D.

Summary:

The purpose of this study was to determine factors playing a role in appointment compliance in a CMHC. All 47 patients who attended an intake evaluation between 2/1/98 and 4/30/98 were included. A retrospective chart review was done to collect data on age, Axis I diagnoses, Axis II diagnoses, and appointment compliance including number of appointments scheduled, kept, cancelled, and missed. The following four variables were used to measure compliance: (1) attended at least 50% of scheduled sessions, (2) attended at least 60% of sessions, (3) attended at least one session beyond intake. Predictor variables that were examined included age, presence or absence of a current substance abuse diagnosis; Axis I diagnosis (depressive disorder, psychotic disorder, anxiety disorder, or bipolar disorder); presence or absence of an Axis II disorder. Patients with current substance abuse had significantly worse compliance as measured by 50% attendance ($p<.02$), 60% attendance ($p<.02$), keeping at least one session ($p<.01$). There was no statistically significant effect of age, Axis I diagnosis, or Axis II diagnosis on any of the three measures of compliance. Thus, in this study current substance abuse was the main predictor of poor appointment compliance.

Supported by the Veterans Administration

NR91 Monday, May 17, 9:00 a.m.-10:30 a.m.
Video-Conferencing and Hispanic Mental Health Care

Sayonara J. Baez, M.D., Department of Psychiatry, Wake Forest University, Medical Center Boulevard, Winston Salem NC 27157; Beverly N. Jones, M.D.

Summary:

Objective: The objective of this project is to assess the accuracy of using videoconferencing technology to provide mental health services to an underserved minority population, Hispanic residents of Piedmont North Carolina. This project is funded through the APA/CMHS Minority Fellowship Program.

Subjects: The target population is competent adult Hispanic patients with mental health needs from two mental health centers in the community, one urban and one rural.

Methods and measures: Hispanic patients are examined by a video conferencing interview by a Spanish-speaking psychiatrist as well as by a face-to-face diagnostic interviews either by a Spanish-speaking psychiatrist or by a psychiatrist using an interpreter. Assessments will be conducted using semistructured interviews as well as accepted rating scales that may incorporate clinicians' visual observations of patients' emotional state and behavior into their scores. The diagnostic results and ratings of symptoms will be compared between the settings, and the research will study the reliability of videoconferencing assessments as well as if the validity of videoconferencing assessments is comparable with the gold standard of face-to-face assessments. Valuable information about the satisfaction and acceptance of video conferencing will be obtained from both the patients and clinicians.

Results: Up-to-date results from this research project will be presented at the poster session.

NR92 Monday, May 17, 9:00 a.m.-10:30 a.m.
Seasonality and SAD in Chinese College Students: A Replication Study

Ling Han, M.D., Department of Psychiatry, St. Mary's Hospital, 3830 Lacombe Avenue, Montreal PQ H3T 1M5, Canada; Keqin Wang, M.D., Yiren Cheng, M.D., Zhaoyun Du, M.D., Norman E. Rosenthal, M.D., Francois Drimeau, M.D.

Summary:

Objective: The goal of this study was to replicate an earlier epidemiological finding of seasonal changes in mood and behavior among Chinese medical students.

Method: Three hundred nineteen college students were surveyed with a Chinese version of the Seasonal Pattern Assessment Questionnaire (SPAQ) and the Beck Depression Inventory (BDI) in Jining, China, during March 1996. The prevalence of seasonal affective disorder (SAD) was estimated and compared with the data from the medical student survey.

Results: The mean Global Seasonality Scores (GSS) of this sample was 9.9 (SD: 4.9); 84% of the subjects reported some problems with the changing seasons. Summer difficulties were more common than winter difficulties (38.9% vs 20.1%). The estimated prevalence rates of summer SAD and subsyndromal SAD (s-SAD) were 7.5% and 11.9%, whereas the corresponding winter figures were 5.6% and 6.3%, respectively. Compared with the medical students, this college student sample had a higher level of GSS but comparable rate ratios between summer and winter SADs (1.6 vs. 1.5 $p>0.05$).

Conclusions: This study replicated our previous epidemiological findings that seasonal problems are common in China, but the predominance of such problems are summer difficulties rather than winter difficulties, which stands in contrast with most Western studies and is consistent with the only other published study performed in the Orient. These results suggest that summer and winter SAD may have different ethnic or cultural determinants.

(The data were collected when the first author was a visiting Associate at the National Institute of Mental Health, Clinical Psychobiology Branch, Bethesda, MD, USA.)

NR93 Monday, May 17, 9:00 a.m.-10:30 a.m.
Age, Gender and Comorbidity in a Large Clinic Sample

Sanjay M. Vaswani, M.D., Department of Psychiatry, Kansas University Medical Ctr, 3901 Rainbow Boulevard, Kansas City KS 66160; Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Ekkehard Othmer, M.D., Barry I. Liskow, M.D., William F. Gabrielli, Jr., M.D., Marsha R. Read, Ph.D.

Summary:

Objective: To investigate the influence of age and gender on lifetime psychiatric comorbidity in a clinic population.

Method: Consecutive admissions to a psychiatric outpatient clinic (N=1458) were administered a criterion-referenced, diagnostic interview before being seen by the treating physician. The mean age was 37.4 years; range = 17 to 92. Hierarchy-free, inclusive, Feighner/DSM-III criteria were used to determine the lifetime prevalence of 15 disorders for male (N=531) and female (N=927) patients representing five decades of life.

Results: The average number of lifetime disorders was roughly the same for men and women (X= 2.1 and 2.0). A significant decline in lifetime comorbidity was found for both sexes as age increased, a finding consistent with the ECA study. Examination of the individual psychiatric disorders by age and sex showed considerable variation that will be detailed in the presentation for the following: substance abuse, mood disorder, schizophrenia, antisocial personality, somatization disorder, anorexia nervosa, anxiety disorder, mental retardation, and OBS.

Conclusion: Overall, the average number of lifetime psychiatric disorders declined among this large patient group as a function of age for both men and women. This age-related decline was not uniform across the different disorders or uniform across the males and females. Clinicians should be alert to the fact that both age and gender significantly influence psychiatric comorbidity in different ways.

NR94 Monday, May 17, 9:00 a.m.-10:30 a.m.
Evaluation of Late-Onset Bipolar Illness During Menopause

Takako V. Ishimaru-Tseng, M.D., Department of Psychiatry, University of Hawaii, 1356 Lusitana Street, 4th Flr, Honolulu HI 96813

Summary:

Objectives: The purpose of this paper is to review the literature on bipolar illness and to discuss its relevance to the treatment of bipolar illness during menopause. The hypothesis is that there exists a group of patients who may present with commonly reported symptoms of menopause who are in fact suffering from an underlying bipolar illness.

Study Design: The literature pertaining to gender differences in bipolar illness as well as the effect of major life events associated with the onset of bipolar illness is closely examined.

Results: There is enough evidence to support the hypothesis that women in particular are vulnerable to bipolar illness of the rapid cycling type, and that exacerbations of a previous existing condition or late-onset bipolar illness may be associated with major stressors and life events such as that experienced during menopause.

Conclusions: Gender differences in the course of bipolar illness and the greater prevalence of rapid cycling among bipolar women may in fact be a major consideration in the evaluation and treatment of symptoms during menopause.

Although gender differences in the evaluation and treatment of bipolar illness have been recognized, the impact of this illness on the experience of menopause is a topic that warrants further exploration. Commonly reported symptoms of menopause including irritability, sleep disturbances, and mood changes may in fact be complicated or worsened by an underlying bipolar disorder. According to the literature the median age of onset of bipolar disorder in women living in the United States is 34.5 years. The peak incidences, however, occur at ages 20-30 and 40-50 years. Leibenluft suggests that women may be more likely to experience the onset of bipolar illness at ages 45-49 years. Assessing older patients for bipolar illness can also present with some difficulties that complicate the clinical picture. Unlike the classic presentation of an agitated, full blown manic patient with pressure of speech and grandiose delusions, older patients are more likely to present with signs of a mixed episode. Without a thorough diagnostic evaluation, many older patients maybe incorrectly diagnosed with agitated depression, schizoaffective disorder, or borderline personality disorder with somatic preoccupation. The danger in this is that these patients may be at risk for rapid cycling and worsening of irritability, especially if antidepressant therapy is initiated without a mood stabilizer. Considering the statistics that indicate that rapid cycling bipolar disorder is three times more common in women, the issue of appropriate mood stabilization and follow-up treatment becomes even more critical in the primary care setting where these patients are likely to present themselves for reproductive health issues.

NR95 Monday, May 17, 9:00 a.m.-10:30 a.m.
Northern Latitude and Prevalence of the SAD: A Meta-Analysis

John M. Haggarty, M.D., Department of Psychiatry, University Western Ontario, 580 North Algoma Street, Thunder Bay ON P7B 5G4, Canada; Zachias Cernovsky, Ph.D., Patricia Kermeen, M.Sc.

Summary:

The latitude hypothesis of mood disorders proposes an association between increasing latitude and light deprivation to an increase in the prevalence of seasonal affective disorder (SAD). The relationship of latitude to mood disorders has been challenged by several studies. We recently carried out a study of the prevalence of SAD in Canada's high arctic, the highest latitude yet studied. To evaluate the magnitude and significance of the relationship of latitude to SAD, our rates of SAD and of subsyndromal seasonal affective disorder (SSAD) were analyzed with published studies at seven different latitudes ranging from 270 (Florida) to our own of 710 (Baffin Island) in a meta-analysis.

The proportions of persons with SAD/SSAD in the eight samples ranged from 4% to 28.3%, with the weighted average at 14.4% (405 of 2,810 persons). Although the Pearson correlation between latitude and SAD/SSAD was significant, the correlation coefficient is very low, and this suggests that the relationship is very weak ($r=.09$, $p<.001$). We conclude that latitude is of limited value as a predictor of SAD or SSAD.

NR96 Monday, May 17, 9:00 a.m.-10:30 a.m.
A Report on the Evidence-Based Medicine Concept Number Needed to Treat

Kimberly Johnson, M.D., East Carolina University, 600 Moye Boulevard, Greenville NC 27858; Christopher M. deGroot, M.D.

Summary:

Objective: The number needed to treat (NNT) is a recently introduced measure of treatment efficacy that facilitates treatment outcome comparisons across studies and across treatments (Guyatt, Sackett, and Cook, 1994). The authors report the identification of a relatively rare, model clinical problem and discuss how the computation of the NNT represents a practical tool busy clinicians can employ when seeking optimal treatment strategies in the absence of large controlled studies.

Methods: The authors performed a computer-driven electronic database search with key words to identify the pharmacologic treatment of Tourette syndrome (TS) and obsessive-compulsive disorder (OCD). Abstracts were thereafter systematically reviewed with a modified rating form derived from the evidence-based medicine (EBM) users' guide (http//hiru.mcmaster.ca/ebm/userguid/2_map.htm) to identify studies reporting the pharmacologic treatment of OCD co-occurring with TS.

Results: Of 55 manuscripts originally identified and examined, five reported pharmacologic intervention and treatment outcomes of OCD symptoms in TS. The NNT was computed from each study, and a combined NNT was computed.

Conclusion: A relatively simple (Medline) computer search for relevant publications, and the subsequent computation of the NNT from their published abstracts, represents an effective technique to answer best-practice treatment questions in the absence of multiple, well-designed, controlled studies.

NR97 Monday, May 17, 9:00 a.m.-10:30 a.m.
The Serial Criminal: Psychiatric and Forensic Aspects

Victor Poggi, M.D., Forensics, National Justice, Ituzaingo 1250 3A Lanus Este, Buenos Aires 1826, Argentina; Antonio Bruno, M.D., Juan C. Romi, M.D., Liliana Florio, Ph.D., Guillermo J. Tortora, M.D.

Summary:

Objective: The purpose of this work has been focused on analyzing outstanding characteristics observed in the serial criminal showing a prevailingly sexual motivation in order to determine the nature of the crime.

Methods: A retrospective research was performed on the most resounding cases within the scope of Argentine casuistry. Moreover, a forensic and psychiatric evaluation was carried out in 17 male murderers during a five-year period.

Results: Age: Most murderers are young or middle-aged adults. Clothing: As murderer's clothing are a part of this ritual they often offer the same characteristics. Psycho-physical Appearance: Serial murderer appears to be socially acceptable. He is also intelligent, seductive, kind, and well-educated. However, his actual ritualized, stereotyped, disturbed and criminal behavior arises under such a social posture. Said behavior gives birth to several stigmas, namely: The Hammer's Madman, The Below Satyr, The Highway Madman and so on. Sexual Activity Modality: It compensates those sexual difficulties generally presented by murderers. Personality: Unstable and immature individuals have been observed. They are likely to show their aggressiveness before frustration. They are hostile, repressed, with a low self-estimated burden. They need affection. They are timid and dreadful. No psychotic symptoms have been evidenced. Repetition (as behavioral pattern) has been clearly noted in their crimes. Serial murderer acts without any partners. His gratification is not economic but personal. An aggressive feature dominates the situation. There exists a time sequence of

attacks. He does not commit any other crimes. He collects items of the victims although they lack any economic value whatsoever, etc.

Conclusions: It is concluded that sexual assault is generally the serial sexual criminal's response to his needs, to wit: a) reaffirming his power on victim's submission; b) attaining a libidinal orgasmic gratification during submission, and c) achieving male chauvinism sociocultural affirmation.

NR98 Monday, May 17, 9:00 a.m.-10:30 a.m. Munchausen Syndrome

Robert C. Rodriguez, M.D., Clinica Flores, Coronel Esteban Bonorino 243, Buenos Aires 1406, Argentina; Claudia B. Norry, Ph.D., Enrique Kuper, M.D., Guillermo J. Tortora, M.D.

Summary:

Introduction and features of the syndrome: We proceeded to make a very extensive bibliographic revision on the syndrome background and its description. The Munchausen Syndrome was described for the first time more than four decades ago and there are a few records about it with references to the systematized studies as well as psychiatric and psychological ones and an inadequacy of neurological studies carried out. It is considered as a pattern of chronic fictitious disorder with somatic symptoms. We have found within the medical corpus a lot of amazing and illustrative examples.

Development of a clinical case: We describe the outstanding self-destructive behavior shown by these patients and the systematic forgery of their biographical data. Also their effects on patient-physician relationship as well as on the medical practice and the unnecessary costs brought upon the health system. We point out the symptoms and diseases suffered by them which cover a great extent of th;e medical fields of study. We state the difficulties to develop appropriate therapeutic strategies.We present the case of a patient of 30 years old with an early diagnosis sent to the psychiatrist from a pain treatment center with a chronic abdominal illness submitted to a lot of medical studies, clinical admissions and surgeries.

Conclusion: The diagnosis difficulties derived from the fraudulent behavior of these patients as well as the countertransference reactions rose on the physicians involved are facts that can lead to erroneous diagnosis with serious consequences for the patient welfare and legal-medical involvements on medical responsibility

NR99 Monday, May 17, 9:00 a.m.-10:30 a.m. Bipolar and Panic Disorder in the NIMH Genetic Study

Jennifer R. Cooper, Department of Psychiatry, Johns Hopkins, 600 N Wolfe Street/Meyer 3 - 181, Baltimore MD 21287; J. Raymond DePaulo, Jr., M.D., Elliott S. Gershon, M.D., John I. Nurnberger, Jr., M.D., Theodore A. Reich, M.D., Dean F. MacKinnon, M.D.

Summary:

Objective: Family study evidence for a genetic relationship of bipolar and panic disorders has been reported previously. We have examined the diagnostic data from a set of families ascertained for a multicenter genetic linkage study of bipolar disorder for evidence that the risk for comorbid panic and bipolar disorder is highest in those with a relative who has both disorders.

Methods: Eight hundred seventy-seven members of 147 families were examined at four sites by means of the Diagnostic Instrument for Genetic Studies (DIGS). Based on the DIGS interview and other supporting evidence, all subjects were assigned diagnoses for major affective and other psychiatric disorders.

Results: Panic disorder was present in 103 (12%) subjects overall and in 78 of 499 individuals (16%) with a bipolar disorder. Panic disorder tended to occur more frequently in the relatives of probands with comorbid bipolar and panic disorder versus relatives of probands without panic disorder (24% vs. 14%), while alcoholism (52% vs. 69%) tended to be less common in these family members.

Conclusions: These results suggest that the presence of comorbid panic disorder with familial bipolar disorder marks a clinical subtype of bipolar disorder and support prior evidence of a genetic relationship between the two disorders.

NR100 Monday, May 17, 9:00 a.m.-10:30 a.m. Dopamine Transporter Gene Polymorphisms in ADHD: A Replication Study in Instanbul, Turkey

M. Yanki Yazgan, M.D., Department of Psychiatry, Marmara University Hospital, Aydin S 6/Altunizade, Istanbul 81, Turkey; Eda Tahir, M.S., Beyazit Cirakoglu, Ph.D., Fatih Ozbay, Phillip Asherson, M.D.

Summary:

Goals: Dopamine transporter gene (DAT) polymorphisms have been reported to be associated with ADHD using case-control and Haplotype Relative Risk (HRR) methods. In this study, we aimed to replicate this association in a Turkish sample of ADHD children and their parents using the HRR method followed by a Transmission Disequilibrium Test (TDT) analysis.

Methods: The study was conducted in an academic specialty clinic in Istanbul. Fifty-five probands (42 boys, 13 girls) who were diagnosed with ADHD according to the DSM-IV criteria, participated. Blood samples from 55 trios, each consisting of an ADHD proband and the parents, were collected and analyzed using methods described elsewhere.

Results: The HRR analysis for preferential transmission of either 9 or 10 repeat alleles of the DAT gene did not prove to be significant (X^2 =2.38, df=2, p>. 14 for 9; X^2=0 .7, df=2, p>.50 for 10). Findings from a TDT analysis were similarly nonsignificant.

Conclusions: Using HRR and TDT methods, we were not able to demonstrate preferential transmission of either 9 or 10 repeat allele of the DAT gene in a Turkish sample of ADHD children and their parents.

NR101 Monday, May 17, 9:00 a.m.-10:30 a.m. Encountering Suicide: The Experience of Canadian Psychiatry Residents

Patricia D. Krawetz, M.D., Department of Psychiatry, University of Manitoba, 771 Bannatyne Avenue, Winnipeg MB R3E 3N4, Canada; Mark S. Etkin, M.D.

Summary:

Objectives: The aims of this study were to determine how often psychiatry residents encounter completed suicide, how suicide affected their personal personal and professional lives, and which supports were available and most useful to residents.

Methods: Canadian psychiatry residents from PGY-2 and on were asked to complete a two-page questionnaire about their encounters with completed suicide during residency. The questionnaire included basic demographics, whether the resident had

encountered a suicide(s), their relationship to the deceased, its impact on the resident, which supports were useful/available to them, and whether they had received education regarding suicide.

Results: Of the 197 respondents (46%), 61.4% indicated they had encountered a suicide(s) during their residency. Sixty-one percent of suicides were by patients, 16.5% by a colleague, friend, or relative, and in 22.3 3% the resident had encountered both. The most frequently reported context was the suicide of a patient who had been seen "on-call" or in consultation, followed by the suicide of a fellow resident/physician. Overall, residents said that the greatest impact was on their emotional health, followed by how they assess patients, and their medicolegal view of psychiatry. Friends and fellow residents were identified as significant supports, followed by family and mentors. Residents expressed a great reluctance to pursue support through employee assistance programs, often due to confidentiality and insurance issues. Only one-third of residents recalled receiving education on the impact of suicide on trainees.

Conclusions: This study indicates that suicide is a commonly encountered and significantly stressful event occurring during psychiatry training.

Financial support provided by the department of postgraduate education. University of Manitoba.

NR102 Monday, May 17 , 9:00 a.m.-10:30 a.m.

A Comparison of Depressive Symptoms in Physicians by Gender

Sudha R. Kumar, M.D., Department of Psychiatry, University of Texas, 7703 Floyd Curl Drive, San Antonio TX 78284; Sara E. Van Scoy, M.D.

Summary:

Objective: The purpose of this pilot study is to compare the prevalence of depressive symptoms in physicians by gender.

Method: IRB approval was obtained. Surveys were sent to 204 female and 204 male physician members of Bexar County Medical Society. Mailing labels obtained from the medical society were randomized by zip code and alphabetical order. The survey inquired about age, income, and history of depression or bipolar disorder. A Beck Depression Inventory (BDI) was included.

Results: Of the 408 surveys sent, 61 female and 46 male physicians responded. BDI scores were categorized as follows: 0-10 normal, 11-16 mild mood disturbance, 17-20 borderline, 21-30 moderate, 31-40 severe, and over 40 extreme depression. Results were converted to percentages and compared by gender. A majority of respondents had normal BDI scores. However, more than 10% of females scored above 11.

Conclusions: This pilot study demonstrates the existence of depressive symptoms in a community of physicians. Female physicians were noted to have marginally greater BDI scores. This may be the result of factors unique to women. Further study is warranted.

NR103 Monday, May 17, 1:00 p.m.-2:30 p.m.

Ten-Year Outcome of Pure Dually-Diagnosed Alcoholics

Nathan D. Shiflett, D.O., Department of Psychiatry, Kansas University Medical Center, 3901 Rainbow Boulevard, Kansas City KS 66160; Barbara J. PowelL Ph.D., Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Peggy J. Cantrell, Ph.D., Jennifer F. Landon, Ph.D., Jan L. Campbell, M.D.

Educational Objectives:

Learn the effects of comorbid Drug Abuse, Antisocial Personality Disorder and Major Depression on the 10-year outcomes of men alcoholics.

Summary:

Objective: To determine the 10- 14-year drinking, psychiatric, and psychosocial outcomes of "pure" groups of dually diagnosed alcoholic men who suffered from alcoholism only or alcoholism plus only one cooccurring psychiatric disorder.

Method: Male inpatient alcoholics (N=360) were extensively examined at entry to the study and one and 10/14 years later. Hierarchy free, inclusive diagnostic criteria derived from a structured interview were used to select a subsample of patients (N=242) who suffered from alcoholism only (N=143) or alcoholism plus major depression (N=38), drug abuse (N=23), or antisocial personality disorder (N=38).

Results: At both the one and 10/14 year follow ups, continued improved drinking outcomes were noted across all groups. Abstinence over the 10/14 years was higher in the alcoholism only group, while ratings of pathological drinking were lower. Greater psychiatric severity and psychosocial dysfunctioning characterized the outcomes of three "dually diagnosed" comorbid groups, with surprisingly few differences between them.

Conclusion: At the one-year followup of this sample, we concluded that "subtyping alcoholics by comorbid psychiatric may be a good postdictor of clinical history but a poor predictor of drinking outcome". After 10-14 years, we must revise that conclusion, suggesting instead that a single additional comorbid psychiatric disorder does adversively affect many long-term outcomes, especially psychiatric and psychosocial outcomes.

Supported in part by ROLAA 7386, R2 1AA07539 and the Medical Research Service of the Department of Veterans Affairs.

References:

1. Powell BJ, Landon JF, Cantrell PJ, Penick EC, Nickel EJ, Liskow BI, Coddington TM, Campbell JL, Dale TM, Vance MD, Rice AS. Prediction of Drinking Outcomes for Male Alcoholics After 10 to 14 Years. Alcoholism: Experimental and Clinical Research, 22, 559-566, 1998.
2. Powell BJ, Penick EC, Nickel EJ, Liskow BI, Riesenmy KD, Champion SL, Brown EF Outcomes of Co-Morbid Alcoholic Men: A 1-Year Followup. Alcoholism: Clinical and Experimental Research. 16, 131-138, 1992.

NR104 Monday, May 17, 1:00 p.m.-2:30 p.m.

Depression Following Myocardial Infarction: A Prospective Assessment of Myocardial Infarction and Depression Incidence

Jacqueline J. Strik, M.D., Department of Psychiatry, AZM, PO Box 5000, Maastricht 6202AZ, The Netherlands; Richel Lousberg, Ph.D., Jim Van Os, Ph.D., Petra M. Kuijpers, M.D., Hein J. Wellens, Ph.D., Herman M. Van Praag, M.D., Adriaan Honig, M.D.

Educational Objectives:

To understand the importance of comorbidity.

Summary:

Objectives: Myocardial infarction (MI) is frequently complicated by depressive disorder, which has been reported to increase morbidity and mortality in the year after the NE. Depression incidence, severity with MI, mortality and morbidity rate were evaluated in a prospective study.

Methods: 173 patients with a first MI were selected and screened for major depression one, three, six and 12 months post MI.

Results: The cumulative incidence rate was 15.9% (N=31); the incidence rate decreased in the first 12 months. No higher mortality among the depressed patients was found. There was a trend towards a higher morbidity. A negative correlation between ASAT max and development of depression was found.

Conclusions: Mortality, in contrast to morbidity, was not higher among the depressed patients in our study. This may be explained by invasive cardiac treatment and geography. No explanation has yet been found for the negative relationship between severity of MI and Depression.

This study was sponsored by Eli Lilly

References:

1. Ladwig KH: Affective disorders and survival after acute myocardial infarction (results from the post-infarction late potential study). European Heart Journal 1991;12:959-964.
2. Frasure-Smith N: Depression following myocardial infarction: impact on 6-months survival. JAMA 1993; 270:999-1005.

NR105 Monday, May 17, 1:00 p.m.-2:30 p.m.

An Open Trial of Repetitive Transcranial Magnetic Stimulation in Treatment-Resistant Depression

Yvonne M. Greene, M.D., Department of Psychiatry, Emory University, 1841 Clifton Road NE, Atlanta GA 30329; William M. McDonald, M.D., Charles M. Epstein, M.D., Liqiong He, M.D., Autumn L. Clark, B.S., Fred Marstellar, Ph.D.

Educational Objectives:

At the end of this presentation the participant will be able to describe that rTMS may be a viable option for patients with treatment-resistant depression.

Summary:

Repetitive transcranial magnetic stimulation (rTMS) is a noninvasive, investigational treatment for depression. We report results of an open trial of rTMS in 14 patients with treatment-resistant depression. Eleven unipolar and three bipolar patients aged 33-76 (mean 55.1+/- 15.7) who were antidepressant free for one week prior to the study received 10 daily treatments over the left dorsolateral prefrontal cortex at 110% of relaxed motor threshold and a frequency of 10 Hz. Stimulation was delivered in 20 trains of five seconds each, 25-seconds apart. Hamilton Depression Rating Scale (HDRS) and Beck Depression Inventory (BDI) were administered at baseline, the end of treatment weeks 1 and 2, and at 4 weeks post treatment.

Both HDRS and BDI scores were significantly improved ($p<0.01$) at all time points compared with baseline. Fifty percent of patients were rated "much improved" or "very much improved" on the Clinical Global Impression Scale at week 2; 25% maintained this response at the week 4 follow up. These results suggest that rTMS may be a viable option for patients with treatment-resistant depression.

We anticipate that 35-40 patients will have completed the study by May 1999.

This study is supported by a private grant through the Fuqua Foundation.

References:

1. George MS, Wassermann EM, Post RM. Transcranial magnetic stimulation: A Neuropsychiatric tool for the 21st century. J of Neuropsychiatry 1996;8(4):373-82.
2. Epstein CM, Figiel GS, McDonald WM, Amazon-Leece J, Figiel L. Rapid-rate transcranial magnetic stimulation in young and middle-aged refractory depressed patients. Psychiatric Annals 1998;28:36-9.

NR106 Monday, May 17, 1:00 p.m.-2:30 p.m.

Calcium Absorption in Depressed Patients

Paulo J. Negro, Jr., M.D., CNE, National Institute of Health, 10 Center Drive, Building 10, Room 2D-46, Bethesda MD 20892; Steven A. Abrams, M.D., Sara L. Avery, R.N., Nancy Vieira, M.S., Denise Sciullo, M.D., Kamal E. Habib, M.D., Paula P. Negro, M.D., Michael Collins, M.D., James C. Reynolds, M.D., Philip W. Gold, M.D., George Chrousos, M.D.

Educational Objectives:

The participant should be able to understand the possible role of calcium metabolism in the pathophysiologic mechanisms by which major depression is associated with clinically significant decreases in bone mineral density.

Summary:

Objective: We have previously demonstrated a marked decrease in bone mineral density in depressed, otherwise healthy pre-menopausal women. The present study addresses the fraction of calcium absorption in depressed patients to elucidate the pathophysiologic mechanisms underlying this phenomenon.

Method: Twenty patients (39yo, sd 10.7yr) with major depression received stable calcium isotopes intravenously (1mg ^{42}Ca) and orally (either 20mcg ^{46}Ca or 0.3mg/kg ^{44}Ca) for estimation of the Fractional Calcium Absorption (FA). Patients have also received a DEXA scan of hip, spine, and wrist and undergone a clinical/endocrine assessment.

Results: In the overall group of depressed patients average FA mean: 18.6% (sd 7.8%). FA in depressed patients correlated negatively with bone mineral density (BMD) in anteroposterior spine ($r= -0.48$, $p=0.02$). There were trends for negative correlations between FA and lateral spine ($=-0.41$, $p=0.06$), femur ($r=-0.46$, $p=0.06$), and radius ($r=-0.37$, $p=0.08$). A positive correlation was found between FA and 1,25 OH vitamin D ($r=0.59$, $p=0.005$), total estrogen ($r=0.47$, $p=0.04$), and 24h total calcium excretion ($r=0.54$, $p=0.03$). No correlations were found between AP and indices of bone formation (osteocalcin) and resorption (hydroxyproline and pyridinitum crosslinks) or hormonal parameters (e.g. parathyroid hormone, free testosterone, calcitonin, DHEA-S). 24h total calcium excretion did not correlate with bone densitometry findings, dietary calcium, but with hydroxyproline ($r=0.58$, $p=0.02$). Average dietary calcium was 1011mg/day (sd 502.9).

Conclusion: The negative correlations found between FA and BMD in depressed patients is counterintuitive; One would expect that the higher the FA, the higher would be the BMD. These data suggest that a pathophysiologic factor in depression might promote FA and that BMD is pathologically reduced despite increased Ca absorption; alternatively, FA might be increased in patients with major depression as a compensation to severe bone loss.

References:

1. Michelson D, Stratakis C, Reynolds J, Galliven E, Chrousos G, Gold P. Bone mineral density in women with depression. NEJM (1996); 335:1176-1181.
2. Gold PW, Goodwin FK, Chrousos GP. Clinical and biochemical manifestations of depression: relation to the neurobiology of stress (Part 1 of 2 parts). N. Engl. J. Med 319:348-353, 1988.

NR107 Monday, May 17, 1:00 p.m.-2:30 p.m.

Seasonality and Climate Variables in the First-Manic Episodes of Bipolar Disorder Patients in Korea

Heon-Jeong Lee, M.D., Department of Psychiatry, Korea University Hospital, 126-1,5KA, Anam-Dong, Sungbuk-Ku, Seoul 136-705, Korea; Leen Kim, M.D., Sook-Haeng Joe, M.D., Kwang-Yoon Suh, M.D.

Educational Objectives:

At the end of this presentation the participant will be able to describe the seasonal variation with a spring peak, and describe how this seasonal tendency is associated with the hours of sunshine.

Summary:

Objective: Some studies have supported the seasonality of affective illness. Korea has four distinct seasons in a year. The purpose of this study is to evaluate the seasonality of the first manic episodes and relationships between manic episodes and climate variables in Korea.

Methods: The first manic episodes of 101 bipolar disorder patients were evaluated. Subjects were hospitalized in Korea University Hospital between January 1995 and December 1998. Subjects had no manic episode before current episode. Any subjects did not have used psychiatric medications for the previous three months. The onset months of current manic episodes were identified. The monthly average data for climate variables were obtained from Korea Meteorological Administration. Correlations between the onset of manic episode and climate variables were evaluated.

Results: Manic episodes peaked in March (17 episodes). The hours of sunshine were significantly with manic episodes($r=.588$, $P=.044$). No other climate variables correlated with manic episodes. Dividing the subjects into patients with life events and without, only the manic episodes without life events were correlated with the hours of sunshine ($r=.601$, $p=.039$).

Conclusion: Occurrence of manic episode tend to show seasonal variation with a spring peak. This seasonal tendency is associated with the hours of sunshine.

References:

1. Takei N. O'Callaghan E, Sham P, Glover G, Taura A, Murray R(1992): Seasonality of admissions in the psychoses: effect of diagnosis, sex, and age at onset. Br J Psychiatry 161: 506-511
2. Carney PA, Fitzgerald CT, Monaghan CE(1988): Influence of climate on the prevalence of mania. Br J Psychiatry 152: 820-823

NR108 Monday, May 17, 1:00 p.m.-2:30 p.m.

Temperamental Characteristics of Children and Adolescents with Bipolar Parents

Kiki D. Chang, M.D., Department of Psychiatry, Stanford University, 401 Quarry Road, Palo Alto CA 94305; Hans Steiner, M.D., Terence A. Ketter, M.D.

Educational Objectives:

At the conclusion of this presentation, the participant should be able to recognize certain temperamental characteristics in offspring of parents with bipolar disorder which may be risk factors for developing bipolar disorder.

Summary:

Background: Studies of adults with bipolar disorder (BD) have suggested that certain personality and temperament traits may be associated with BD (Osher et al., 1996). Temperamental characteristics may represent the genetic contribution to the development of BD. There have been no such studies in children and adolescents with BD. We sought to better understand the contributions of temperament to the development of childhood BD by assessing a group of children at high risk for developing BD-offspring of parents with BD (Lapalme, et al., 1997).

Methods: 65 children aged 6-18 from 37 families with at least one biological parent with BD were evaluated by the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime (K-SADS- PL). Parents were also interviewed to obtain family psychiatric history and socioeconomic status. Parents completed the Revised Dimensions of Temperament Survey (DOTS-R) for children under 12 years old, while children over 12 years completed the DOTS-R themselves.

Results: Fifty-eight percent of the children had some Axis I disorder—14% had BD, 17% had attention deficit/hyperactivity disorder (ADHD), 15% had major depression/dysthymia (MD), and 12% had an anxiety disorder (ANX). Overall, the cohort did not differ from national means for the DOTS- R. Subjects with, compared to without, an Axis I disorder had lower Flexibility ($p<.02$), Mood ($p<.02$), and Task Orientation ($p<.03$) scores and tended to have lower Rhythm-Sleep scores. Subjects with BD had lower Flexibility ($p<.01$) and Task Orientation ($p<.01$) scores, and higher Activity-General ($p<.001$) scores than those without BD or those without an Axis I disorder. Subjects with MD tended to have lower Mood and Flexibility scores compared to those without an Axis I disorder. Subjects with ANX had decreased Rhythm (Sleep, Daily Habits, and Eating) scores compared to those without an Axis I disorder. Compared to subjects who had non-bipolar Axis I disorders, the BD group most closely resembled the ADHD group, which had lower Flexibility ($p<.01$), Mood ($p<.05$), and Task Orientation ($p<.02$) scores compared to subjects without an Axis I disorder. The BD group did not differ significantly from the ADHD group, only tending to have higher Activity-General scores.

Conclusions: Certain bipolar offspring may have distinct temperamental characteristics that put them at higher risk for developing BD. These may include reduced flexibility in adapting to new situations, less persistence in finishing tasks, and higher levels of motor activity. Offspring with ADHD or depression may share temperamental characteristics such as decreased flexibility with those with BD and may be at higher risk for later development of BD.

Supported by the Stanley Foundation.

References:

1. Osher Y, Cloninger CR, Belmaker RH: TPQ in euthymic manic-depressive patients. J Psychiatry Res 1996; 30:353-7.
2. Lapalme M, Hodgins S, LaRoche C: Children of parents with bipolar disorder: a metaanalysis of risk for mental disorders. Can J Psychiatry 1997; 42:623-31.

NR109 Monday, May 17, 1:00 p.m.-2:30 p.m.

Psychiatric Training for Primary Care Providers: Comparisons Between Internal Medicine and Family Practice

Ana C. Posada, M.D., Department of Psychiatry, University of Miami/VAMC, 5470 SW 17th Street, Plantation FL 33317; Maria D.D. Llorente, M.D., Raymond L. Ownby, M.D.

Educational Objectives:

Recognize the level of current training in psychiatric assessment and treatment that is received by primary care providers and identify new strategies to improve this level of training.

Summary:

Objectives: 30%-40% of primary care patients have mental illnesses but are underdiagnosed and undertreated. This study evaluated U.S. training in psychiatry for medical students and primary care residents.

Methods: Surveys were mailed to training directors of all U.S. university-based internal medicine (IM), family practice (FP), and medical school psychiatry programs requesting information about rotations and didactics. Frequency distributions, 2-tailed t-tests and chi squares were performed. Statistical significance set a at $p<0.05$.

Results: Two hundred ninety-nine (55.8%) surveys were returned; 87.8% of FP mandate psychiatry, while only 34% IM do. For both IM/FP, 86 (37.4%) programs either did not offer psychiatry or had no residents rotate through psychiatry. Also 35.7% of IM and 29.4% of FP do not offer outpatient psychiatry; 52% of IM/FP residents in psychiatry rotations see outpatients; 52.5% of medical students are never exposed to outpatients, but 75% see severely, chronically ill inpatients.

Conclusions: (1) Unless psychiatry rotations are mandated, primary care residents don't elect this experience. (2) A significant proportion of primary care residents have no or limited training in diagnosis and management of ambulatory psychiatric conditions. (3) Psychiatry clerkships and primary care residencies need to provide ambulatory experiences that will expose trainees to patients with mood and anxiety disorders.

Sponsored by the Miami VAMC Geriatric Research, Education and Clinical Center (GRECC).

References:

1. Higgins ES. A Review of Unrecognized Mental Illness in Primary Care, Arch Fam Med 1994: 3:908-917.
2. Depression Guideline Panel. Clinical Practice Guideline Number 5: Depression in Primary Care. Rockville Md. US Dept of Health & Human Services, Public Health Service, Agency for Health Care Policy & Research; 1993. ACHPR publication 93-0551.

NR110 Monday, May 17, 1:00 p.m.-2:30 p.m.
Prolactin Levels in Youths with Childhood-Onset Schizophrenia After Treatment with Haloperidol, Clozapine and Olanzapine

Marianne Wudarsky, M.D., CPB/Building 10, Room 3N202, NIH, 10 Center Drive, Bethesda MD 20892; Lori Spechler, B.A., Robert J. Nicolson, M.D., Susan Hamburger, M.S., Cara Alfaro, Pharm.D., J.L. Rapoport, M.D.

Summary:

Little is known about the effects of antipsychotics in youths. Serum prolactin was measured at baseline and following six-week treatments with haloperidol (n = 15), clozapine (n = 22), and olanzapine (n = 9) for 46 adolescents (mean age, sd = 14 +/-1.9) with childhood-onset schizophrenia. As expected, the six week prolactin level following haloperidol was elevated: 47.8 ng/ml, (sd=30.6, 95% confidence interval=32.42 to 63.38). Clozapine treatment resulted in mean prolactin of 10.9 ng/ml (sd=4.2, CI=9.16 to 12.64), which is within normal limits. Mean prolactin following olanzapine was 24.6 ng/ml (sd = 9.9, CI = 18.15 to 31.05). Prolactin levels were significantly increased over baseline after six-week haloperidol (mean difference= 38.7(+/-28.5), CI=22.9 to 54.5, p=.001), clozapine (2.6, +/-4.1, CI=0.8 to 4.4, p=.007), and olanzapine treatment (mean difference= 13.7,+/-9.6, CI=6.3 to 21, p=.003) treatments. Prolactin elevation from baseline to week 6 was greater for haloperidol than for olanzapine (t=2.25, p=.04) and also greater than for clozapine (t=3.57, P = .006). Prolactin change for olanzapine was also greater than that for clozapine (n = 17,9, t = 4.1, p<.001). This unexpected prolactin elevation in adolescents on olanzapine suggests that the drug has different effects on pediatric patients. Because of the medical risks of prolactinemia, such as galactorrhea and possible increased risk of mammary carcinoma, further clinical study is indicated.

NR111 Monday, May 17, 1:00 p.m.-2:30 p.m.
Lack of Association Between Violence in Schizophrenia and Polymorphisms in Genes That Regulate Serotonin Transmission

Takuya Saito, M.D., Department of Psychiatry, Bronx Psychiatric Center, 1500 Waters Place, Ward 19, Bronx NY 1046 1; Herbert Lachman, M.D., Pavel Mohr, M.D., Karen Nolan, Ph.D., Jan Volavka, M.D.

Educational Objectives:

At the conclusion of this presentation the participant should be able to describe the finding of a negative association between aggressive behavior in schizophrenics and polymorphisms in the serotonin transporter, the tryptophan hydroxylase and monoamine oxidase-A genes.

Summary:

Object: We previously reported that a functional polymorphism in the catechol-O-methyltransferase (COMT) gene is associated with aggressive behavior in schizophrenia. However, serotonergic pathways also have been implicated in aggressive behavior. Polymorphisms in the serotonin transporter (5-HTT), the tryptophan hydroxylase (TPH), and monoamine oxidase-A (MAOA) genes were reported to be associated with impulsivity and aggression in violent alcoholics and violent borderline personality disorder subjects. In this study we have analyzed these genes in a population of violent schizophrenic patients.

Method: One hundred-six patients with schizophrenia or schizoaffective disorder were studied. The patients were divided into two groups: violent, which is characterized by two or more episodes of assaultive behavior, and non-violent, which is characterized by the absence of any history of assaultive or threatening behavior.

Result: No association was detected between aggressive behavior in schizophrenia and polymorphisms in the TPH, 5-HTT and MAOA genes.

Conclusion: The result suggests that polymorphisms in genes involved in serotonergic pathways, previously shown to be associated with violent behavior, do not appear to play a role in violence in schizophrenia. In view of our previous findings with the COMT gene, catecholaminergic pathways may be more important factors in violence in schizophrenia than serotonergic pathways.

References:

1. Lachman HM, Nolan K. Saito T, Volavka J. Association of COMT polymorphism in aggressive schizophrenics. Am J Psychiatry 1998; 155:835-837

2. Hallikainen T., Saito T., Lachman H., Volavka J., Pojalainen T., Ryynanen OP., Kauhanen J., Syvalahti E., Heietala J., Tiihonen J. Association between low activity serotonin transporter promoter genotype and habitual impulsive violent. Molecular Psychiatry 1999 (in press)

NR112 Monday, May 17, 1:00 p.m.-2:30 p.m.
Expressed Emotion and Relapse in Turkish Patients with Schizophrenia

Aykut Ozden, M.D., Department of Psychiatry, Beth Israel, 290 Third Avenue, #10-A, New York NY 10010; Saynur Canat, M.D.

Educational Objectives:

The participant should be able to recognize the concept of expressed emotions and their place in schizophrenic relapse, with an emphasis on Turkish Culture.

Summary:

Objective: The relation between expressed emotion (EE) and relapse in schizophrenia has been studied extensively since the 1970s. However, it is a relatively new and controversial area in non-Western countries. In this study, the level and relevance of EE in Turkish patients with schizophrenia who have relapsed are investigated.

Method: The study is conducted in the Psychiatry clinic of University of Ankara, Turkey. Seventy-six patients with schizophrenia according to DSM-III-R criteria were included. The patients were in remission on intake and were followed for 18 months prospectively. The Level of EE Scale and BPRS are used for assessment. Patients who have relapsed and not relapsed were compared regarding their EE levels and other relevant factors.

Results: Fifty-one (67%) patients completed the study, among whom 26 (51%) have relapsed during the 18-month follow-up period. EE levels were significantly higher in the relapsed patients, families. However, the overall levels of criticism and and hostility subscales were lower than in previous Western studies, whereas overinvolvement was higher.

Conclusion: EE is found to be a predictor of relapse in Turkish schizophrenia patients.

References:

1. Butzlaff RL, Hoolev JM (1998) Expressed emotion and psychiatric relapse: a meta-analysis. Arch Gen Psychiatry 55(6): 547-52

2. Bebbington P, Kuipers L (1994) The clinical utility of expressed emotion in schizophrenia. Acta Psychiatr Scand Suppl 382: 46-53

NR113 Monday, May 17, 1:00 p.m.-2:30 p.m.
Premorbid Function and Its Meaning in First-Episode Psychosis

Rogelio Apiquian, M.D., Clinical Research, Institute of Mexican Psychiatry, Calz Mexico- Xochimilco 101, Mexico City 14370, Mexico; Rosa Elena Ulloa, M.D., Humberto Nicolini, Ph.D., Ana Fresan, M.D., Francisco Paez, M.D., Elena Medina-Mora, Ph.D.

Educational Objectives:

Demonstrate the relation of the poor premorbid adjustment with a long period of duration of untreated psychosis.

Summary:

Psychosis of early onset has been associated with poor premorbid function.

Objective: This study tried to determine the premorbid function in a group of patients in their first psychotic episode.

Method: Fifty-five patients were recruited from consecutive admissions to the Mexican Institute of Psychiatry in their first psychotic episode; the diagnosis were made with the Schedules for Clinical Assessment in Neuropsychiatry. General adjustment prior to the emergence of psychotic symptoms was evaluated with the Premorbid Adjustment Scale (PAS).

Results: Fifty-one percent of the patients were male. The mean age was 27±10 years. The duration of untreated psychosis (DUP) was 61±75 weeks. Patients were classified according their diagnosis in affective (n=20) or nonaffective (n=35) psychosis. The patients showed a poor premorbid adjustment (total PAS=0.31±0.31), particularly in late adolescence and early adulthood. The premorbid functioning was poorer in men (0.42 vs. 0.30, t= 2.43, df=53, p<0.04). The nonaffective psychotic group had higher scores in the PAS adulthood subscale than did the affective psychotic group (0.44±0.42 vs. 0.09 ±0.12, t= 3.3, df= 53, P=0.002). The PAS general subscale correlated positively with DUP (r=0.28, p=0.04).

Conclusion: These findings suggest that premorbid adjustment must be examined in psychotic patients to conduct an early intervention and reduce the DUP.

References:

1. Larsen TK, et. al. First-Episode Schizophrenia: Premorbid Patterns by Gender. Schizoph Bull, 22 (2): 257-269, 1996.

2. Haas GL, Sweeney TA. Premorbid and onset features of First-Episode Schizophrenia. Schizoph Bull, 18 (3), 1992.

NR114 Monday, May 17, 1:00 p.m.-2:30 p.m.
Reduced Orbital and Superior Prefrontal Cortex Volumes in Schizophrenia

Dev R. Puri, B.A., Department of Psychiatry, University of CA at San Francisco, 86 San Jose Avenue, San Francisco CA 94110; Valerie Cardenas, Ph.D., Camilla Johnson, B.S., Courtnay Bloomer, B.A., Raymond F. Deicken, M.D., Yael Eliaz, B.A.

Educational Objectives:

To understand the importance of obtaining MRI volumetric measurements of specific functionally homogeneous regions of the prefrontal cortex in schizophrenia.

Summary:

Objectives: MRI studies of the prefrontal cortex in schizophrenia have yielded discrepant findings. This may in part be due to a failure to take into account the complex structural and functional heterogeneity of the prefrontal cortex when obtaining quantitative volumetric measurements. Therefore, the objective of this study was to determine whether four functionally homogeneous regions of the prefrontal cortex in schizophrenia were characterized by gray matter volume reductions using a Talairach atlas-based MRI volumetric technique.

Methods: Thirteen medicated schizophrenic male patients and 10 male controls underwent MRI/MRSI using a Siemens Vision System. MRI included coronal MP RAGE and axial DSE images. The prefrontal cortex was subdivided into four functionally homogeneous regions using Talairach atlas-defined Brodmann areas: 1) inferior (Brodmann areas 44, 45), 2) middle (Brodmann areas 6, 8, 9.10, 46), 3) Superior (Brodmann areas 6, 8, 9, 10, 11, 12), and 4) orbital (Brodmann areas 10, 11, and 47). A fifth global region (Brodmann areas 6, 8, 9, 10, 11, 12, 44, 45, 46, 47) measure was also obtained. Gray matter volumes of each of these regions was obtained using in-house software and corrected for total brain volume.

Results: T-test analysis showed a decrease of the orbital (p=0.016), superior (p=0.036), and global (p=.0.041) prefrontal cortical regions in the schizophrenic patients compared with controls. However, there were no significant group differences in the inferior (p=0.148) or middle (p=0.097) prefrontal cortical regions.

Conclusions: These preliminary findings suggest that the prefrontal cortical gray matter volume reductions in schizophrenia may be primarily localized to the orbital and superior prefrontal regions. In addition. they confirm the importance of obtaining gray matter volume measurements of specific functionally homogeneous regions of the prefrontal cortex in patients with schizophrenia.

References:

1. Buchanan RW, Vladar K, Barta P. Pearlson GD: Structural evaluation of the prefrontal cortex in schizophrenia. Am J Psychiatry 155:1049-1055, 1998.
2. Andreasen NC, Rajarethinam R, Cizadlo T, et al: Automatic atlas-based volume estimation of human brain regions from MR images. J Comp Assist Tomogr 20:98-106, 1996.

NR115 Monday, May 17, 3:00 p.m.-5:00 p.m.
Substance Use Among Depressed Patients in Managed Primary Care

Carol A. Roeloffs, M.D., Department of Psychiatry, UCLA-NPI, 10920 Wilshire Blvd, Ste 300, Los Angeles CA 90024; Kenneth B. Wells M.D.

Summary:

Objective: To determine the prevalence and characteristics of alcohol and illicit drug use and prescription drug misuse in depressed, primary care patients.

Method: Design: Cross-sectional, observational data from a quality improvement study for depression in primary care; Setting: Clinics of six managed care organizations; Patients: 1,356 depressed patients; Outcome measures: Illicit and prescription drug misuse in the past six months.,harmful drinking in the past 12 months using the Alcohol Use Disorders Identification Test.

Results: Eleven percent were harmful drinkers; 26% used at least one illicit drug or misused at least one prescription drug in the past six months. Sedatives (13%) were the most common responses. Harmful drinking was associated with younger age, male gender, and employment. Prescription drug use was associated with anxiety disorders, suicide ideation, and chronic medical disease.

Conclusions: Prescription drug misuse was more common than harmful drinking or illicit drug use among depressed primary care patients. Recognition of clinical and demographic characteristics of substance users facilitates identification of subgroups of depressed patients who may warrant more intensive evaluation, counseling, or referral.

Source of Funding: NIMH Faculty Scholars Program

NR116 Monday, May 17, 3:00 p.m.-5:00 p.m.
Increasing Compliance in Newly Depressed Patients

Donald W. Robinson, Jr., M.S.P.H., COMPA, Merck Medical Company, 100 Summit Avenue, Montvace NJ 07645; George Fulop, M.D., Laurence Hirsch, M.D., Michelle Hensleigh, M.P.A., Debra Maldonato, M.S.

Summary:

Objective: Up to 40% of depressed patients fail to complete four months of antidepressant therapy. We report preliminary results of a health management program based on AHCPR guidelines, designed to improve medication compliance among first- or recurrent-episode depressed patients.

Methods: With patient consent/authorization, 437 patients who recently (11/23/97-7/31/98) filled an initial antidepressant prescription (Rx) were mailed educational materials and received counseling calls from trained nurses or pharmacists. Rx claims were monitored for 30 days after the date when initial antidepressant supply would end (= Day 0). Refill behavior was considered a surrogate for medication compliance. A randomly selected control group (N=874) was frequency-matched by age, gender, location, and time of initial antidepressant Rx.

Results: Average age of patients and controls = 53 +/- 15 yrs; 67% were female. Thirty-four percent of intervened patients refilled their first Rx by Day 0, and 78% by Day 30, compared with 30% and 58%, respectively, of controls. Median time to first refill was three [95% CI 2,4] days In intervention patients, vs 13 [8,18] days in controls ($p < 0.001$).

Conclusions: A health management program utilizing a PBM database can raise patient antidepressant compliance during the critical acute treatment phase.

Funding: Program developed by Merck-Medco, supported by Pfizer Health Solutions, Inc.

NR117 Monday, May 17, 3:00 p.m.-5:00 p.m.
Programs for Assertive Community Treatment Service Patterns: Demographics and Outcomes

Scot W. McNary, M.A., Department of Psychiatry, University of Maryland, 685 Baltimore Avenue, MSTF 300, Baltimore MD 21201; Lisa B. Dixon, M.D., Anthony F. Lehman, M.D.

Summary:

Objectives: Programs for Assertive Community Treatment (PACTs) reduce symptoms and extend community tenure for persons with serious mental illness. Outcome studies may ignore heterogeneity among client service use in order to gain power for outcome evaluations and focus on direct outcome measures. This report attempted to find subgroups of PACT clients defined by service-use patterns. Identifying subgroups may help refine programs to suit heterogeneous needs among clients.

Methods: Twelve months of service use were tabulated for 59 homeless PACT clients with serious mental illness. Number of months receiving service was correlated with demographic and outcome variables.

Results: Receipt of direct and resource-linking services remained constant over the first six months and then decreased. The proportion receiving evaluation and planning services decreased linearly from initial contact. Months receiving service was not associated with any demographic variables, but months of evaluation service was associated with life satisfaction, and psychiatric and medical symptoms assessed at one year.

Conclusions: A subset of PACT clients continued to receive evaluation and planning services for an extended period of time. Those clients also appeared to have more psychiatric and physical symptoms and were less satisfied with their life circumstances. This may be related to difficulty in establishing treatment engagement with PACT.

NR118 Monday, May 17, 3:00 p.m.-5:00 p.m.
Maternal Depression and Pediatric Preventive Health Services Utilization

John D. McLennan, M.D., Department of Psychiatry, University

of NC Medical Sch, 501 Billingsly Road, Charlotte NC 28211; Milton Kotelchuck, Ph.D , Kristin B. Young, M.S.P.H.

Summary:

Objective: To determine if maternal depressive symptomatology is related to lower utilization of preventive health services for young children.

Method: Data on 5,874 mothers of young children were obtained from the 1988 National Maternal and Infant Health Survey and 1991 Longitudinal Followup Survey. Both survey points included the Center for Epidemiologic Studies Depression Scale (CES-D). The main outcome measure was number of prevention health visits.

Results: Twenty-seven percent of mothers scored high (16 or greater) on the CES-D at one of the two survey points, and 12% at both time points. In bivariate analyses, high depressive scores were negatively related to the number of well child visits. In stratified analysis, this negative relationship was found for the following maternal subsamples: income >$18,000, private insurance, living with a significant other, and higher education. The CES-D score remained significant in the final multivariate model only when it was run as a continuous variable.

Conclusion: Maternal depressive symptoms may contribute to the variation seen in the utilization of pediatric preventive care. This may be truer for higher versus lower SES groups, as other barriers may play a greater role for the latter and minimize the saliency of this additional stressor.

Funding: Van Amerigen Foundation

NR119 Monday, May 17, 3:00 p.m. - 5:00 p.m.
Risk Factors for Transfer from a Geropsychiatric to a Medical Unit

Can Bulucu, M.D., Department of Psychiatry, Hillside Hospital, 75-59 263rd Street, Glen Oaks NY 11004; Neil J. Kremen, M.D., Elisse Kramer, Ph.D., Peter Manu, M.D.

Summary:

Objective: To determine predictors of serious medical complications requiring emergency transfer to a medical unit during psychiatric hospitalization of the elderly.

Methods: A structured audit of the medical records of 150 consecutive admissions to the geropsychiatric wards of a 230-bed academic facility was performed. A total of 102 demographic, clinical, and functional status variables were collected. The study group was divided into patients who did or did not require emergency transfer to a medical unit in the affiliated medical center. Univariate parametric and nonparametric statistics were applied where appropriate.

Results: A total of 39/150 (26%) patients required emergency transfer. These patients had significantly greater impairment in activities of daily living, including ambulation (p=.001), elimination (p=.002), hygiene (p=.002), eating (p=.003), and dressing (p=.01), and a greater incidence of falls prior to admission (p=.027). Among the clinical variables recorded on admission, only the presence of tachycardia (p=.01) and disorientation (p=.08) was associated with the likelihood of the need for medical transfer.

Conclusions: A substantial minority of elderly patients admitted for psychiatric care developed complications that required transfer to a medical unit. The presence of significant impairment in the ability to perform activities of daily living, a history of falls, disorientation, and tachycardia recorded on admission appear in this study to be risk factors for medical complications requiring emergency transfer.

NR120 Monday, May 17, 3:00 p.m.-5:00 p.m.
Use of Atypical Antipsychotics in a Veterans Affairs Hospital

Thomas L. Schwartz, M.D., Department of Psychiatry, SUNY Health Sciences Center, 750 E Adams Street, Syracuse NY 13210; William J. Hardoby, M.D., Mercy Saba, M.D., Sarah L. Berry, B.S., Prakash S. Masand, M.D.

Summary:

Objective: To evaluate the efficacy of atypical antipsychotics and to determine the cost differential between them.

Methods: A retrospective chart review was conducted on 88 consecutive outpatients on atypical antipsychotics seen between May and August 1997 at the Veterans Administration Medical Center in Syracuse, N.Y. Data collected included demographic information, diagnosis, psychiatric history, dose and duration of treatment, CGI symptom improvement, side effects, number of psychiatric hospitalizations, and cost of atypical antipsychotics. Risperidone and olanzapine were compared on each of the variables.

Results: There was no statistical difference between patients receiving olanzapine (N=23) and risperidone (N=65) in age, ethnicity, sex, psychiatric history, number of psychiatric hospitalizations, or rates of EPS and TD. Olanzapine patients were significantly more likely to have akathisia (p=0.012) and a diagnosis of residual schizophrenia (p=0.011). Mean duration of treatment was 19.6 months for risperidone and 12.4 months for olanzapine. The average dose was 12.3 +/- 6.9 mg/day for olanzapine and 3.62 +/- 2.3 mg/day for risperidone. The VA cost of olanzapine for the average dose was $6.67/day and for risperidone was $3.32/day. There were no significant differences on measures of CGI symptom improvement.

Conclusions: Risperidone and olanzapine appear to have equal efficacy in the treatment of psychotic disorders. Risperidone may be less likely than olanzapine to cause akathisia. Olanzapine is twice as expensive as risperidone in treating comparable patients with psychotic disorders.

NR121 Monday, May 17, 3:00 p.m.-5:00. p.m.
Divalproex Sodium Versus Lithium Carbonate: Is There a Difference for In-Hospital Treatment of Bipolar Disorders?

Thomas L. Schwartz, M.D., Department of Psychiatry, SUNY Health Sciences Center, 750 E Adams Street, Syracuse NY 13210; Declan P. Boylan, M.D., K.N. Roy Chengappa, M.D., Sanjay Gupta, M.D., Prakash S. Masand, M.D.

Summary:

Two questions are frequently asked concerning the medical-economic implications of medication use for bipolar illness: (1) Which is most effective and most tolerable? and (2) Are newer, brand-name medications worth the expense? This study sought to evaluate these questions.

Method: We conducted a retrospective chart review of 25 inpatient and outpatient charts. (This is an ongoing study. There are approximately 25 Veterans hospital patients under review for addition to this study. [Total number of subjects will equal 50] The current statistics are fairly robust for the above findings and may not change prior to the APA meeting. If they do, appropriate changes will be made to this abstract.) All patients were currently taking divalproex sodium (DV) and had been switched from lithium carbonate (LC) by their treating psychiatrist. Data collected included dose, duration, side effects, and effectiveness of DV

versus LC treatments using retrospective chart review and the Clinical Global Impression Scale.

Results: T-tests for dependent samples revealed that DV was administered at higher doses than LC, and DV treatment improved CGI scores significantly over LC. There was no significant difference in side effect profile. LC was discontinued more.

Conclusions: Effectiveness and symptom reduction were greater for DV when compared to LC for treating this population of chronic, hospitalized bipolar patients. There were no side effect differences between medications. It appears LC was discontinued more due to lower effectiveness in treating bipolar illness. Given these results. it may be cost-effective to use the brand name DV over LC in treating this population of bipolar patients.

NR122 Monday, May 17, 3:00 p.m.-5:00 p.m. Good Clinical Practice in Two Studies with Paroxetine in Argentina

Guillermo J. Tortora, M.D., Neuroscience, ANA, Ituzaingo 1250, 3A Lanus Este, Buenos Aires 1824, Argentina; Pablo A. Liuboschitz, Ph.D., Roxana Aluarez, Ph.D., Liliana Florio, Ph.D., Dario Bowetti, Ph.D., Pablo Mateos, M.D.

Summary:

Introduction: In Argentina the ANMAT provides the legal basis for guidelines for GCP.

Objective: The objective of the present study is a description of the most frequent difficulties observed in the investigators in psychopharmacology in our country.

Method: We coordinated and monitored 189 investigators who took part in two multicenters clinical studies with paroxetine developed in our country, one of them, open non-comparative to evaluate the efficacy and tolerability of paroxetine on 950 patients with depression following DS-IV diagnostic criteria, and the other one double-blind with placebo in adolescents with depressive disorders. Single episode (DSM-IV criteria 296.2x)

Results: From a total of 189 investigators screened, the most common difficulties observed among the investigators were: investigators reports 63%; device control 57%; informed consent 28%; records of subjects 26%; study approval 24%; CRFs 24%, and protocol violations 23%.

Conclusions: Our experience allows us to infer that despite the fact that all of them were good professionals, an important percentage of them did not know or did not use the "Good Clinical Practice" rules required to ensure the scientific accuracy and ethics in the clinical investigation.

All this has contributed to the creation in Argentina of GCP-RA, which gathers professionals of renowned national and international background, and monitors clinical investigators and opinion makers identified with the GCP rules.

NR123 Monday, May 17, 3:00 p.m.-5:00 p.m. Cardiac Side Effects of Two SSRIs in Middle-Aged and Elderly Depressed Patients

Jacqueline J. Strik, M.D., Department of Psychiatry, AZM, PO Box 5000, Maastricht 6202AZ, The Netherlands; Adriaan Honig, M.D., Richel Lousberg, Ph.D., Emile C. Cheriex, Ph.D., Herman M. Van Praag, M.D.

Summary:

Objectives: Selective serotonin reuptake inhibitors (SSRIs) are the "new" drugs of choice for the treatment of depression in the older patient. There have been, however, few systematic randomized studies on the effects of SSRIs on cardiac function, despite the high prevalence of cardiac disorders in the older patient. This study evaluated the side effects of SSRIs on cardiac function in middle-aged and elderly depressed patients.

Methods: Twenty patients were blindly randomized to treatment with fluvoxamine 20 mg or fluoxetine 100 mg per day for six weeks. Cardiac function was assessed by echocardiography, i.e., left ventricle ejection fraction (LVEF), aortic flow integral (AI), and early or passive/late or active mitral inflow (E/A ratio), and electrocardiography (ECG).

Results: Neither SSRI significantly affected cardiac function, nor were there significant differences between the two SSRIs. Compared with patients without a history of myocardial infarction and/or hypertension, patients with such a history showed a significant improvement in the left ventricular ejection fraction.

Conclusions: This study indicates that neither fluoxetine nor fluovoxamine affect cardiac function adversely.

This study was sponsored by Solvay Pharma.

NR124 Monday, May 17, 3:00 p.m.-5:00 p.m. Substance Dependence and the Utilization of PRN Anxiolytic/Hypnotic Drugs in the Hospital Setting

David E. Lyon, B.S., Department of Psychiatry, Michigan State University, 2111 Harding Avenue, Lansing MI 48910; Dale A. D'Mello, M.D., Christopher C. Colenda, M.D., Colin Fernandes, M.D.

Summary:

Introduction: Patients hospitalized for treatment of psychiatric illness commonly receive prn antianxiety and hypnotic agents. The relationship between illicit drug use and prn antianxiety/hypnotic drug use in hospitalized patients has not been extensively examined. The purpose of the present study was to examine this relationship.

Methods: A retrospective review of 99 randomly.selected hospitalized patients abstracted information regarding the utilization of prn anxiolytics and hypnotic medications.

Results: Seventy percent of the patients surveyed evidenced substance dependence. The substance users used prn anxiolytics (T=2.29, df=81, p 0.05) and bedtime hypnotics (T=4.23, df=90, p 0.0001) more frequently than the non-users.

Discussion: Hospitalized substance abusers appear to continue their substance abuse in the hospital, substituting prescription preparations for illicit drugs. Nevertheless, cumulative literature now suggests that targeted utilization of anxiolytic and hypnotic agents may play a critical role in the management of aggressive behavior and insomnia in patients hospitalized with psychiatric illness.

NR125 Monday, May 17, 3:00 p.m.-5:00 p.m. Ethnic Disparity in the Management of Psychiatric Symptoms in the National Ambulatory Medical Care Survey

Carlos Blanco-Jerez, M.D., Department of Psychiatry, Columbia University, 722 West 168th Street, Box 69, New York NY 10032; Mark Olfson, M.D.

Summary:

Objective: To investigate whether the management of patients who seek care for psychological reasons or receive a psychiatric diagnosis is influenced by their ethnic background.

Method: Data were drawn from the 1996 National Ambulatory Medical Care Survey (NAMCS), a nationally representative sample of office practice across all medical specialties with information on 29,805 patient visits.

Results: Compared with visits by white patients, visits by Hispanic patients were more likely to be to psychiatrists, but less likely to be to neurologists. Hispanic patients had more visits for psychological reasons, received more psychiatric diagnoses, and were more likely to be in psychotherapy than white patients. However, visits by Hispanic patients were 20% shorter in duration and less often included psychotropic medications. African-American patients made fewer visits to psychiatrists and neurologists, fewer and shorter visits for psychological reasons, received fewer psychiatric diagnoses, less psychotherapy, ,and fewer psychotropic prescriptions than both Hispanics and whites (df = 2, for all chi-squares, df = 2536 for all analyses of variance, $p < .001$ for all tests).

Conclusion: As compared with whites, Hispanic and African-American patients appear to receive less intensive management of psychiatric symptoms.

NR126 Monday, May 17, 3:00 p.m.-5:00 p.m.
A Long-Term, Double-Blind, Placebo-Controlled Study of Fluvoxamine for Pathological Gambling

Carlos Blanco-Jerez, M.D., Department of Psychiatry, Columbia University, 722 West 168th Street, Box 69, New York NY 10032; Eva Petkova, Ph.D., Angela Ibanez, M.D., Jeronimo Saiz-Ruiz, M.D.

Summary:

Objective: To evaluate the efficacy of fluvoxamine in the treatment of pathological gambling.

Method: Thirty-four patients were treated for six months in a double-blind, placebo-control study of fluvoxamine 200 mg/day. Outcome measures included reduction in money and time spent in gambling per week. Longitudinal mixed effects models and last observation carried forward analyses were used for estimation and hypothesis testing.

Results: Fluvoxamine was not statistically significantly different from placebo in the overall sample. However, fluvoxamine was statistically significantly superior to placebo among males and among younger patients.

Conclusion: Fluvoxamine may be a useful treatment for certain subgroups of patients with pathological gambling.

NR127 Monday, May 17, 3:00 p.m.-5:00 p.m.
Prevalence and Predictors of Psychotropic Drug Use in Pregnancy and Neonatal Outcome

Betsy A. Ciarimboli, M.D., 60 Brattle St. #504, Cambridge MA 02138; Adele C. Viguera, M.D., Lee S. Cohen, M.D., Joan Stoler, M.D.

Summary:

Mood disorders cluster in women during the childbearing years. The estimated prevalence of psychotropic drug use including antidepressants during pregnancy ranges from 1%-13%.

Objective: The purpose of this study was to determine the prevalence of psychotropic drug use during pregnancy in a population-based sample, and to investigate potential relationships between psychotropic drug use during pregnancy and maternal psychiatric history as well as other demographic variables. Neonatal outcome after psychotropic drug exposure was also examined.

Method: Psychotropic drug use during pregnancy was determined among women seen through the obstetrics service at a tertiary-care hospital. Data were obtained from the computerized electronic medical record used by the hospital's obstetrics service. Information regarding maternal history of depression and other psychiatric disorders, maternal demographic characteristics, and neonatal Apgar scores, birth weight, age at gestation, and admission to a special-care nursery were also assessed.

Results: Data from a random sample (N=1000) of 2,332 subjects (2,350 deliveries) over a one-year period will be presented. Preliminary review of these data suggest a prevalence of psychotropic drug use during pregnancy of approximately 4%-5%. Presence of a psychiatric disorder before pregnancy was associated with an increased number of nonpsychiatric hospitalizations and phone calls to obstetric providers during pregnancy. Neonatal outcome following prenatal exposure to psychotropics will also be discussed.

Conclusion: Given the prevalence of psychiatric disorders and psychotropic drug use during the childbearing years, guidelines are required regarding the safest use of these agents during pregnancy.

NR128 Monday, May 17, 3:00 p.m.-5:00 p.m.
How Often Do Psychiatrists Raise the Dose When SSRIs Do Not Work?

Steffany J. Fredman, B.A., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WAC 812, Boston MA 02114; Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D., Candace N. White, M.Ed., David Miscoulon, M.D., John B. Herman, M.D., Andrew A. Nierenberg, M.D.

Summary:

Background: Although there appears to be a flat dose-response curve for initial response to SSRI therapy for depression, studies suggest that raising doses may be an effective strategy among patients who fail to achieve or sustain a full response to an SSRI. It is unclear, though, whether this approach is widely used among practitioners.

Methods: We surveyed 432 attendees at the Massachusetts General Hospital annual psychopharmacology review course, 93% of whom identified themselves as psychiatrists. We asked the physicians to indicate their first choice "next step" strategy in response to four vignettes: a patient with minimal response after four weeks of adequate SSRI treatment, a patient who is partially responsive after eight weeks of SSRI treatment, a patient who is nonresponsive after eight weeks of SSRI treatment, and a patient who relapses while taking long-term SSRI therapy.

Results: For minimal responders after four weeks, partial responders at eight weeks, and relapsers during long-term SSRI treatment, raising the SSRI dose was by far the most commonly endorsed first-choice strategy, reported at rates of 80%, 83%, and 80%, respectively. However, for nonresponders at eight weeks, combination, augmentation, and switching strategies accounted for 74% of the first-choice options among these physicians.

Conclusion: Our study suggests that physicians frequently utilize the SSRI dose increase strategy with partially responsive patients and relapsers, but not as often with nonresponders after an adequate exposure to SSRI treatment.

NR129 Monday, May 17, 3:00 p.m.-5:00 p.m.
Ginkgo Biloba LI 1370 Extract: Effects on Sleep Regulation and Cognitive Psychomotor Functions in Patients with Major Depression

Edith Holsboer-Trachsler, M.D, Depression, Psychiatric University, Wilhelm Klein-Strasse 27, Basel CH 4025, Switzerland; Martin Hatzinger, M.D., Ulrich Hemmeter, M.D., Barbara Annen, Ph.D.

Summary:

In MD, both sleep disturbances and cognitive deficits are common features. So far, the latter were successfully treated with Ginkgo biloba extract only in patients with dementia. To investigate the effects of GB LI 1370 (GB) on cognitive dysfunction and sleep regulation in depression, we conducted an explorative, open, pilot study in depressed inpatients who were on a standardized antidepressive treatment with trimipram 200 mg/d. Seven patients received an adjunct GB therapy 240 mg/d over four weeks and were compared with an age- and sex-matched control group (n=7). Sleep regulation and cognitive-psychomotor functions were assessed after short-term and long-term adjunct GB treatment, as well as seven days after withdrawal. Using sleep EEG, it was demonstrated that GB significantly (1) improved sleep pattern due to reduced number of awakenings after short-term treatment and (2) increased slow wave sleep after long-term treatment ($p<0.05$). After withdrawal, REM latency was significantly reduced ($p<0.05$) and SWS decreased by trend ($p<0.1$). In addition, after short-term treatment, the cognitive function testing revealed significantly enhanced cognitive-psychomotor performance (divided attention) in the adjunct GB therapy group ($p<0.05$).

It is concluded that GB may exert beneficial effects on sleep regulation, especially non-REM sleep, as well as on cognitive functioning in patients with MD.

NR130 Monday, May 17, 3:00 p.m.-5:00 p.m.
Clinical Efficacy and Tolerability of the Hypericum Extract in Depressive Disorders

Edith Holsboer-Trachsler, M.D, Depression, Psychiatric University, Wilhelm Klein-Strasse 27, Basel CH 4025, Switzerland; Christian Vanoni, M.D.

Summary:

Objectives: To study the efficacy and tolerability of hypericum extract and assess the influence of age and disease severity on outcome.

Patients and Methods: Subjects were 647 patients (30% men, 70% women, aged 15 to 94) suffering from mild to moderate depression (ICID-10 F 32.0/.1) treated for six weeks with hypericum extract LI 160 (Jarsin 300), one tablet t.i.d.; 86 patients withdrew prematurely. Assessments included ratings of overall efficacy and tolerability (primary endpoints), depression (von Zerssen), symptoms, and adverse events.

Results: The condition of the patients improved in 83%. The von Zerssen depression score decreased from 19.8-21.2 (95%-CI) at baseline to 12.4-13.7 at week 3 and to 8.1-9.3 at week 6 ($p<0.001$). All symptoms were improved at week 3 and further at week 6. The condition improved somewhat slower in patients older than 65 years, whereas the severity of the depression did not appear to have an effect on the outcome. Adverse events were reported by 17% of the patients, the most frequent being gastrointestinal and phototoxic reactions. These were not severe, and overall tolerability was rated by 99% as satisfactory or better.

NR131 Monday, May 17. 3:00 p.m.-5:00 p.m.
Pramipexole Augmentation of Antidepressant Therapy

Steven F. Kendell, M.D., Department of Psychiatry, Long Beach VA, 5901 East Seventh Street, Long Beach CA 90822; Mark D. Herbst M.D.

Summary:

Objective: The authors report on the open use of pramipexole, a selective dopamine D2/D3 agonist, as augmentation of standard antidepressant pharmacotherapy.

Method: Six subjects being treated for major depressive disorder had pramipexole added to their pharmacotherapy regime. Hamilton depression inventories were measured on intake and during pramipexole treatment.

Results: Pramipexole was well tolerated. Subjectively, many of the patients noted a rapid improvement. Outcome data are presented below.

Subject sex/age	Mg/day pramipexole	Other Psychotropics	Intake Ham-D	Post pramipexole HAM-D
Female 42	0.5	sertraline 200mg lithium 900mg	20	11
Male 46	1.5	paroxitine 60mg	18	5
Male 51	2.0	paroxitine 60mg	16	6
Male 82	2.0	sertraline 100 mg risperdone 0.5mg	26	21
Male 56	1.0	sertraline 200mg mirtazapine 45mg	24	13
Male 54	2.0	paroxitine 40mg	25	8

Conclusions: Pramipexole augmentation of antidepressant pharmacotherapy was well tolerated and associated with significant and rapid improvement of depression in open use. It is unclear if pramipexole alone has an antidepressant effect or if this effect is seen only in combination with standard antidepressant pharmacotherapy. The results suggest that pramipexole may have a useful antidepressant effect. Further study including a placebo-controlled trial may be warranted.

NR132 Monday, May 17, 3:00 p.m.-5:00 p.m.
Clonidine Plus Haloperidol Treatment of Patients with Chronic Schizophrenia: A Double-Blind, Placebo-Controlled Study

Hyeong-Seob Kim, M.D., Mood Disorders, Clarke Institute, 250 College Street, Toronto ON M5T 1R8, Canada; So-Hee Kim, M.D., Hye-Soon Lee, M.D., Sung-Hak Ji, M.D.

Summary:

This is a double-blind, placebo-controlled study of clinical effects and changes of plasma level of haloperidol in combining the clonidine (alpha2 adrenergic agonist) with haloperidol for the treatment of chronic schizophrenics (N=36).

Methods: With informed consent, dosages of haloperidol were maintained from at least two weeks before double-blind assignment to haloperidol plus clonidine or placebo for four weeks (mean dose; 28 mg/day). Clonidine was started at 0.1 mg b.i.d. daily and then raised 0.1 mg/day (maximum dosage; 0.6 mg/day). Vital signs were checked every day. BPRS for symptoms rating and NOSIE for behavioral rating were done by trained research staff (at base, 2nd, 4th week). Haloperidol assays in plasma were done by HPLC. Statistical analyses were done by ANOVA, t-test, chi-square test.

Results: In the baseline characteristics (age, sex, duration of illness, dosage of haloperidol, plasma conc. of haloperidol and reduced haloperidol, scores of BPRS & NOSIE) of the two groups did not reveal statistical differences. Any changes of vital sign (including orthostasis) were not significant. A comparison of the two groups showed that on the BPRS total, thought, paranoid, withdrawal, anxiety-depression disorder subscale scores there were no statistically significant differences. At end point of NOSIE, total scores were significantly improved than base in both groups ($p<0.05$); however, comparison of two groups over time, drug, and drug-by-time effects were not statistically significant. In the clonidine group, plasma level of haloperidol and reduced haloperidol at the fourth week were significantly increased than base ($p=0.024$, $p=0.014$).

Conclusion: There was no significant difference between haloperidol plus clonidine and placebo in the treatment of chronic schizophrenic patients, though clonidine increased plasma level of haloperidol and reduced haloperidol. That the subjects of this study were chronic and severely ill schizophrenics might be one of the reasons. There is the possibility that the improvement of NOSIE is due to effects of frequent, regular contact with patients.

NR133 Monday, May 17, 3:00 p.m.-5:00 p.m. Increase in Gene Expression of Superoxide Dismutase by Some Antidepressants

Xin-Min Li, M.D., Department of Psychiatry, Univ of Saskatchewan, A114 MERB 103 Wiggins Rd. Saskatoon SK S7N 5E4, Canada; Jennifer Chlan-Fourney, B.A., Augusto V. Juorio, Ph.D., Vern L. Bennett, M.D., Satish Shrikhande, M.D., Rudy L. Bowen, M.D.

Summary:

Objectives: Recent studies suggest that stress-induced dysregulation of the HPA axis plays a role in the etiology and exacerbation of clinical depression. Since both stress and glucocorticoid treatments in animals cause dendritic atrophy in the hippocampus, it has been suggested that hippocampal atrophy in depression might be due to such factors. The enzyme superoxide dismutase (SOD1) reduces the oxidative stress of a cell and thus may prevent premature aging and death of the neuron. Since glucocorticoids have been shown to downregulate SOD1 activity, we tested the ability of various antidepressants (ADs) to regulate this mRNA in PC12 cells.

Methods: Amitriptyline, bupropion, doxepin, and venlafaxine were administered to PC12 (rat pheochromocytoma) cells in culture. The effects of the ADs on SOD1 mRNA levels were analyzed by northern blot after 24 or 48 hours of incubation.

Results: All four ADs upregulated SOD1 mRNA, whereby the greatest upregulation was seen at longer time points and higher doses.

Conclusion: Some ADs have the ability to positively regulate neuroprotective genes. Thus, if clinical depression is characterized by progressive hippocampal atrophy, ongoing treatment with ADs, even during remission, may be warranted.

Support: Saskatchewan Health

NR134 Monday, May 17, 3:00 p.m.-5:00 p.m. Severe EPS in Women Receiving Depot Neuroleptics: Case Series and Review of the Literature

Chitra Malur, M.D., Department of Psychiatry, SUNY-Stony Brook, HSC-T10, Stony Brook NY 11794-8101; Laura J. Fochtmann, M.D.

Summary:

Objective and Background: Extrapyramidal syndrome (EPS) is a known side effect of neuroleptic treatment that generally responds to cessation of neuroleptic and/or treatment with anticholinergic agents. It is not known whether specific patient characteristics increase susceptibility to severe EPS with depot neuroleptic use. We report a case series of three women who developed protracted EPS with fluphenazine decanoate. We also review literature on similar cases and on possible etiologies of prolonged EPS with depot neuroleptics.

Observations: Three middle-aged women presented with profound EPS with masked facies, cogwheeling, decreased mobility, and prominent rigidity after receiving fluphenazine decanoate in dosages of 25-50 mg IM. Standing doses of neuroleptic were discontinued. Nonetheless, the severe EPS persisted, and all patients were treated with anticholingeric agents, L-dopa/carbidopa, and lorazepam. Additionally, two patients were treated with ECT for their psychiatric and motor symptoms. Although the EPS showed only a partial response to these treatments, it ultimately resolved over several months.

Conclusions: Pharmacokinetic factors may place middle-aged women with low body mass at particular risk of developing severe or prolonged EPS with depot neuroleptics. When prolonged EPS does occur, response to typical treatments may be incomplete. These factors should be taken into consideration when initiating depot neuroleptic treatment.

NR135 Monday, May 17, 3:00 p.m.-5:00 p.m. Emergence of Catatonia During ECT

Chitra Malur, M.D., Department of Psychiatry, SUNY-Stony Brook, HSC-T10, Stony Brook NY 11794-8101; Andrew J. Francis, Jr., M.D.

Summary:

Objective: Catatonia responds well to ECT, but onset of catatonia during ECT has not been described. We report four cases where catatonia emerged during ECT and review their clinical management.

Method: Four affectively ill patients (three without prior catatonia) developed catatonia during ECT given for an episode of affective and psychotic symptoms without catatonic signs. Their clinical courses were summarized, and catatonia was rated on the Bush-Francis scale.

Results: On admission, three patients were on benzodiazepines; all four were free of benzodiazepines for at least five days prior to ECT. Two became catatonic after ECT #4, one after ECT #1, and one after ECT #10. The catatonia resolved with benzodiazepines, which were then continued. Two patients then completed their course of ECT, while two received neuroleptics and/or antidepressants without further ECT. All showed improvements in affective and psychotic symptoms.

Conclusions: Catatonia may appear during a course of ECT, and recent cessation of benzodiazepines may be a risk factor. This form of catatonia responds to benzodiazepines, and effective ECT may be continued. Our prior report of synergism of ECT and benzodiazepines may also apply to cases where catatonia did not occur prior to ECT but emerged during ECT.

NR136 Monday, May 17, 3:00 p.m.-5:00 p.m. Average Dose and Weight: Olanzapine Versus Risperidone

James M. Martinez, M.D., Department of Psychiatry, UTMB at

Galveston, 404 University Blvd/Rt 0197, Galveston TX 77555; James M. Russell, M.D., Joan A. Mackell, Ph.D.

Summary:

Introduction Objective: Weight gain is associated with the administration of many antipsychotic medications, increases the risk of medical comorbidity and mortality, and is a major contributor to noncompliance. This study evaluates average daily dose and weight gain in outpatients treated with either risperidone or olanzapine. The impact of baseline weight, Body Mass Index (BMI), daily dose, diagnosis, comorbid medical conditions, concomitant medications, age, and gender is also examined.

Methods: Charts were selected at random from an outpatient community mental health center to include patients prescribed olanzapine or risperidone for at least six months with 80% compliance. Diagnosis and symptom severity were confirmed by SCID and SLC-90.

Results: Both olanzapine and risperidone were frequently associated with weight gain. Thirty-one men and 29 women met inclusion criteria. The mean age was 42.7 for olanzapine and 43.2 years for risperidone patients. The mean baseline BMI was 29.9 for olanzapine and 28.5 for risperidone patients. The mean (SD) change in BMI was 6.4% (11.4%) for olanzapine and 4.1% (10.0%) for risperidone patients. On average, patients were treated with 18.6 mg/day of olanzapine and 5.5 mg/day of risperidone for 18 months. After adjusting for the published recommended daily dose, olanzapine patients were more likely to be treated with higher doses ($p < 0.001$). There was a significant correlation between mean daily dose and percent increase in BMI.

Conclusion: After adjusting for confounds, patients treated with high doses of olanzapine were most likely to have significant increases in weight. While health and compliance consequences of weight gain have been reported elsewhere, further study is required to determine the effects of observed weight gain in this cohort.

Supported by an unrestricted grant from Pfizer, Inc.

NR137 Monday, May 17, 3:00 p.m.-5:00 p.m.
Strategies for Management of Depression Refractory to SSRI Treatment: A Survey of Clinicians

David Mischoulon, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WAC 812, Boston MA 02114; Andrew A. Nierenberg, M.D., Leena Kizilbash M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.

Summary:

Objective: To examine treatment practices among physicians in cases where SSRIs are ineffective.

Methods: We surveyed 801 clinicians (including 630 psychiatrists, 38 physicians in other specialties, and various other practitioners) attending the Massachusetts General Hospital's annual psychopharmacology review course. Clinicians received a vignette about a depressed patient who had failed treatment with an SSRI and were asked about their preferences among strategies available to manage this patient.

Results: Four hundred sixty-six clinicians (58%) returned the questionnaires. Clinicians who responded had been in practice a mean of 16.6 years (SD 10.7). Eighty-four percent of clinicians chose to increase the dose of the SSRI, 10% of clinicians chose augmentation or combination, and 7% of clinicians opted for switching agents. Bupropion was the most widely chosen augmenting agent (30%), followed by lithium (22%). When asked to switch to another agent, 52% of clinicians chose a newer antidepressant, 34% chose another SSRI, 10% chose a TCA, 2% chose a SNRL,1% chose a MAOI, and 1% chose an undefined "other" agent.

Conclusions: Clinicians in this sample preferred increasing the dose of the SSRI as the first-line strategy for treatment of refractory depression. Newer antidepressants were favored as second-line agents, and bupropion was the preferred augmenting agent.

NR138 Monday, May 17, 3:00 p.m.-5:00 p.m.
Citalopram in Depression: Response and Serotonin

Ricardo Nunez, M.D., Department of Psychiatry, University of Miami, 1400 NW 10th Ave, Ste 304A D79, Miami FL 33136; Paul J. Goodnick, M.D., Wendy E. Doran, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D.

Summary:

Citalopram is a relatively specific selective serotonin reuptake inhibitor (SSRI) that was approved by the FDA for release in the USA in 1998. As part of a multicenter trial, we administered citalopram to 10 patients meeting criteria for major depressive disorder (DSM-IV) with a minimal baseline HDRS of 18 (17-item). Patients were evaluated with the HDRS, BDI, and CGI at baseline, and after four, eight, and twelve weeks. Patients were randomized to receive medication in the AM or PM; blood pressures and weight were obtained at each visit. In addition, platelet serotonin content was measured at baseline and final visit to test the hypothesis that, as previously found with other SSRIs (Goodnick et al, 1995, 1997, 1998) (1) platelet content would fall after treatment; and (2) platelet concentration would relate to response.

Results: There were 5M and 5F with a mean age of 44.4 ± 9.8 Yr. Two patients dropped out quickly due to noncompliance and sudden need for surgery. One dropped out early (within four weeks) due to diarrhea. The other seven completed; one was a previous nonresponder to multiple antidepressants. Including all available data (8 patients), there was a significant improvement in HDRS (24.5 to 11.9, <.01; as well as in BDI (.02) and in CGI (.01). Platelet 5HT content fell significantly from 78.0 to 7.4 (.02). If one separates out those seven new to treatment, those with a 50% fall in HDRS appear to have higher baseline levels of platelet 5HT Content than the rest (87.6 vs. 38, p=.10). These results are consistent with previous findings with sertraline, paroxetine, etc. but need replication in larger groups.

NR139 Monday, May 17, 3:00 p.m.-5:00 p.m.
Olanzapine Pharmacoeconomic Study

Brenda S.K. Quon, M.D., 1124 W Carson Street, B4 South, Torrance CA 90502; Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

Summary:

A number of new atypical antipsychotics have recently become available to prescribing psychiatrists in the United States. These new agents, which include clozapine, risperidone, olanzapine, and quetiapine, appear to be more effective with fewer side effects than the older typical agents. However, like most new medications their cost can be high which may limit or prohibit their use, unless substantial direct care savings such as decreased hospitalizations can be demonstrated.

Objective: In order to establish such direct care savings the first 700 patients placed on olanzapine in the Los Angeles

County Department of Mental Health were studied for 18 months before and after treatment with the medication.

Method: Utilizing a computerized mental health utilization and prescription tracking system, the following information was evaluated: demographics, diagnosis, previous exposure to clozapine or risperidone, visits to psychiatric emergency rooms, days spent in psychiatric hospitals, as well as use of concurrent medications such as antidepressants and mood stabilizers.

Results: The results from the study will be provided at the poster session.

Supported in part by the Research Center on the Psychobiology of Ethnicity. MH47193.

NR140 Monday, May 17, 3:00 p.m.-5:00 p.m.
Quetiapine Pharmacoeconomic Study

William Resnick, M.D., Department of Psychiatry, Harbor-UCLA Medical Center, 1124 W Carson Street, B4 South, Torrance CA 90502; Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

Summary:

A number of new atypical antipsychotics have recently become available to prescribing psychiatrists in the United States. These new agents, which include clozapine, risperidone, olanzapme, and quetiapine, appear to be more effective with fewer side effects than the older typical agents. However, like most new medications their cost can be high, which may limit or prohibit their use, unless substantial direct care savings such as decreased hospitalizations can be demonstrated.

Objective: In order to establish such direct care savings the first 120 patients placed on quetiapine in the Los Angeles County Department of Mental Health were studied for 18 months before and after treatment with the medication.

Method: Utilizing a computerized mental health utilization and prescription tracking system, the following information was evaluated: visits to psychiatric emergency rooms, days spent in psychiatric hospitals, as well as use of concurrent medications such as antidepressants and mood stabilizers.

Results: The results from the study will be provided at the poster session.

Supported in part by the Research Center on the Psychobiology of Ethnicity MH47193.

NR141 Monday, May 17, 3:00 p.m.-5:00 p.m.
CYT2D6 Genotyping in Patients with Schizophrenia

Oscar V. Rosas, M.D., Department of Psychiatry, Harbor-UCLA Medical Center, 1124 W Carson Street, B4 South, Torrance CA 90502; Michael W. Smith, M.D., Keh-Ming Lin, M.D., Russell E. Poland, Ph.D.

Summary:

Ethnic and interindividual response to psychotropics has recently been attributed to genetic variations in drug metabolizing enzymes, specifically the P450 enzyme system. Side effects and toxicity have been seen with standard doses of antidepressants and typical antipsychotics in individuals deficient in these enzymes. Alterations in these same enzymes have also been associated with extrapyramidal symptoms, Parkinson disease, as well as certain types of cancer. Less clear cut is their association with psychiatric illness such as schizophrenia. Earlier studies that examined heterogenous groups of schizophrenics and CYP2D6 mutations found no relationship. However, a recently published report in the American Journal of Psychiatry found a higher rate of CYP2D6 mutations in individuals hospitalized in a long-term state psychiatric hospital. Suggesting that treatment-resistant or intolerant patients may have a higher rate of mutations.

Objective: In order to further evaluate the role that CYP2D6 activity plays in a subgroup of schizophrenics resistant or intolerant to typical antipsychotics.

Method: A group of 100 schizophrenic patients were evaluated. Genotyping for CYP2D6 activity, as well as medication, and clinical histories were evaluated. Due to the increased prevalence of certain mutations in certain ethnic groups, ethnicity was also evaluated. Mutation rates in schizophrenics were compared with rates in normal subjects of the same ethnicity.

Results: Initial analysis indicates a large overrepresentation of mutations in patients compared with normals. Completed analysis of the data will be provided at the poster session.

Conclusions: Although larger studies are needed, these results indicate the possibility of a biological marker that may be used to identify patients that may benefit from atypical antipsychotics.

Supported in part by the Research Center on the Psychobiology of Ethnicity MH47193.

NR142 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Perceived Parental Fostering Attitudes by Patients with Schizophrenia in Two Korean Hospitals

Jung-Hyun Nam, M.D., Neuropsychiatry, Hanyang University Kuri Hosp, 249-1 Kyomun-Dong, Kuri Kyonggi 471-701, Korea; Jong-Il Lee, MD., Seok-Hyeon Kim, MD., Yong-Chon Park, M.D.

Summary:

At the conclusion of this presentation, the participant should be able to understand that the paternal fostering attitudes are as important as maternal fostering attitudes in schizophrenic patients and that the evaluation about the father's role in fostering is essential to understand the patient.

Objective: To evaluate the perceived parental fostering attitudes in schizophrenic patients.

Method: 43-item questionnaire administered to 52 schizophrenic patients diagnosed with the criteria of DSM-IV, 52 patients' siblings, and 69 controls, which consisted of randomly selected college students and laymen. "The Parental Fostering Attitude Scale" consisted of eight subscales with five-point rating score.

Results: First, the perceived maternal attitudes was not significantly different between schizophrenic patients and the control group except for the achievement scale. No significant differences of perceived paternal attitudes were found between the patient group and the control group. Second, perceived parental attitudes did not show any significant differences among groups by the educational level of the subjects. Third, fathers in all groups were perceived as less affective, more hostile, not overprotective and controlling, not limiting consistently and guiding rationally on children's behaviors, and less supportive on achievement than mothers.

Conclusion: The hypothesis of Fromm-Reichmann that mothers of schizophrenic patients are aloof, rejecting, overprotective, and overtly hostile is not consistent with our results. The paternal fostering attitudes seem to be more problematic but further elaboration is needed.

NR143 Monday, May 17, 3:00 p.m.-5:00 p.m.
Dispragmatism: A Noticeable Symptom in Schizophrenia

Antonio Bruno, M.D., Forensics, National Justice, Ituzaingo 1250-3A Lanus Este, Buenos Aires 1824, Argentina; Guillermo J. Tortora, M.D., Liliana Florio, Ph.D., Ignacio Brusco, M.D.

Summary:

Pragmatism is a philosophical concept that has been brought up by William James when saying that mankind's thought is translated into an activity with a useful purpose. The word "dispragmatism" (i.e., dis = difficulty, pragmatism = activity with a useful purpose) has been utilized to name such a psychopathologic manifestation in the schizophrenic condition. Said manifestation is not aimed at becoming a pathognomonic symptom of the disease but the expression of the disablement shown by a sick individual, his or her impotence to take decisions on his or her own as regards the acts performed. Said acts are thus disagreeing, since they carry the cast of sick individual's unequal intentional attitude. When a significant number of patients (n=37) was studied during one year, it was been observed that there exists such a disability coming from patients' psychic separation itself. Thus, the patient is unable to lead adequate behavioral willful manifestations consistently and by following accurate goals, that is, with a useful purpose. Minkowski has referred to such condition as "pragmatic insanity."

Conclusions: (1) We are not determined to create a new symptom regarding these patients but assign it a more adequate term, thus being consistent with schizophrenic patient's symptomatology with respect to his or her impairment or even inability, to express a behavior lacking any useful purpose. We deem it proper to identify such manifestation as "dispragmatism." (2) Pragmatism disorders go together with evaluation and later control of actions related to limbic function. The amigdala performs the pragmatic memory role acknowledging dangerous situations. In view of circumstances recognized as improper or dangerous by this nuclear complex, behavior is inhibited and this inhibition is associated with some subcortical structures that control mainly fear instinct. Pragmatism should be distinguished from praxia, that is, the indiscriminate execution of an action and represents mainly a cortical function. This function is inhibited by the pragmatic mechanism described before.

NR144 Monday, May 17, 3:00 p.m.-5:00 p.m.
Delusional Disorder: Sensory Acuity and Reasoning

Charles R. Conway, M.D., Department of Psychiatry, Duke University, Durham NC 27710; Anna M. Bollini, B.A., Brevick G. Graham, B.A., Richard S.E. Keefe, Ph.D., Susan S. Schiffman, Ph.D., Joseph P. McEvoy, M.D.

Summary:

Introduction: Delusional disorder (DD) patients manifest nonbizarre delusions without behavioral disorganization or hallucinations. They arrive at their beliefs with insufficient "evidence," often including an overemphasis on subtle sensory data. Few studies have assessed their sensory perceptual acuity or reasoning strategies.

Objectives: To assess DD patients in the following areas: (1) sensory capacities, (2) decision-making with limited information, and (3) complex reasoning.

Methods: Eleven patients and six controls completed the following: (1) smell, taste and vision threshold testing, (2) a probabilistic inference test (Volans, 1976) in which subjects attempted to determine from which of two jars a series of colored beads originated, and (3) a gambling task assessing complex reasoning (Bechara, 1994)

Results: Patients and controls did not differ on any of the sensory acuity tests. Patients required only 2.1 beads to draw conclusions about the jar of origin versus 4.2 for controls. In the Bechara gambling task, DD patients were quicker than normal in determining the pattern of reward and risk, drawing conclusions after 65 cards versus 75 for normals.

Conclusions: DD patients do not demonstrate differences in smell, taste, and visual perception. DD patients do make earlier decisions with less information than controls.

NR145 Monday, May 17, 3:00 p.m.-5:00 p.m.
Prescription Pattern of Antipsychotic Use in an Outpatient Setting

Irish Crisanto, M.D., Mental Health, Bronx VAMC, 130 Kingsbridge Road, Bronx NY 10468; Lyonel Benoit-Rock, M.D., Sherley Millet, M.D., Sarah Ballou, B.A., Robert G. Stern, M.D.

Summary:

Computer-based hospital pharmacy action profile records for prescription of antipsychotic medication to patients with schizophrenia over one year were reviewed. Medical charts were also reviewed to obtain clinical data. Two hundred charts will be reviewed for this study. Preliminary analysis on 72 charts are presented.

Results: The most frequently prescribed antipsychotic drugs were: (1) Haldol Deconoate: 22.2 (2) Olanzapine: 19.4 (3) Risperidone: 15.3 (4) Haldol Tablets: 11.1. Only 4.2% of patients received two or more antipsychotics at the same time. Among this population, 94.1% did not require anticholinergic drugs. For those with side effects, Benztropine was the most frequently prescribed (53.4%). In addition, 78.1% did not use anticonvulsant drugs. Divalproex (62.5%) was the most frequently prescribed mood stabilizer. In this population, 78.1 did not require antidepressant medication. Most frequently prescribed were nortriptyline (18.8%), fluoxexline(18.8%), and sertraline (18.8%).

Conclusion: These findings suggest that in this facility there is a tendency toward the use of atypical neuroleptics, probably related to the lower incidence of side effects.

NR146 Monday, May 17, 3:00 p.m.-5:00 p.m.
Racial Differences in Rates of Depression in Schizophrenia

Janine C. Delahanty, M.A., Department of Psychiatry, University of Maryland, 685 W Baltimore St/MSTF 300, Baltimore MD 21201; Leticia T. Postrado, Ph.D., Theodora G. Balis, M.D., Lisa D. Green-Paden, M.D., Alicia Lucksted, Ph.D., Lisa B. Dixon, M.D.

Summary:

Introduction: The purpose of this study was to determine whether demographic and clinical factors are associated with a broad-band diagnosis of affective disorder and/or a more narrow-band diagnosis of depression among persons with schizophrenia.

Methods: The Schizophrenia PORT Project surveyed a stratified, random sample of 719 persons (63% male, 54% white) with schizophrenia. The survey assessed the presence of depressive and psychotic symptoms and the comorbid diagnoses of affective disorders and depression.

Results: The odds of being diagnosed with a current affective disorder were two times greater in Caucasians than in African Americans. While there were no racial differences for a *current* diagnosis of depression, Caucasians were twice as likely to have been diagnosed in their *lifetime* with depression. Surprisingly, there were no racial differences on the SCL-90 Depression scale Scores. African Americans did report significantly higher psychotic symptoms as measured by the SCL-90 Psychoticism scale.

Conclusion: This study suggests the importance of race as a predictor of a diagnosis of depression in schizophrenia and the possibility of underdiagnosis of depression among African Americans. The lack of association between diagnosis of current depression and current depressive symptoms for Caucasians may raise questions as to the validity of the diagnostic criteria for the diagnosis of depression.

NR147 Monday, May 17, 3:00 p.m.-5:00 p.m. Corpus Callosum Shape Differences in First-Episode Psychosis and Affective Disorder

Melissa Frumin, M.D., Department of Psychiatry, Brockton VA, 940 Belmont Street, Brockton MA 02301 Robert W. McCarley, M.D., Martha E. Shenton, Ph.D., Yoshio Hirayasu, M.D., Dean F. Salisbury, Ph.D.

Summary:

There is growing evidence to suggest that some structural abnormalities observed in schizophrenia are neurodevelopmental in origin. The corpus callosum (CC), the largest brain white matter tract, is a midline structure whose development is intimately associated with the hippocampal formation, the septum pellucidum, and the cingulate cortex, all structures implicated in the pathogenesis of schizophrenia. The shape of the corpus callosum, therefore, may reflect a midline neurodevelopmental abnormality. Previous MRI studies of the CC have yielded conflicting results as to whether there are morpholological differences between people with schizophrenia and normals. In this study, the best mid-saggital slice of the CC was analyzed in 15 first-episode schizophrenic patients, 19 first-episode bipolar patients with psychosis, and 17 normal controls. Using ANOVA, there was no significant difference in overall area measures between the three groups. However, using a two-dimensional skeletonization technique to analyze shape, the separation between patients and the control groups was statistically significant ($p<0.0001$). This shape difference may reflect a neurodevelopmental model as causal in the pathogenesis of schizophrenia.

NR148 Monday, May 17, 3:00 p.m.-5:00 p.m. The Effects of Typical and Atypical Antipsychotic Medications on Electrocardiographic Parameters in Schizophrenia

David M. Harwitz, M.D., Department of Psychiatry, Mt. Sinai Hospital, 205 E 95th Street, #14B, New York NY 10128-4067; Sarah Ballou, B.A., Julie Kim, B.A., Robert G. Stern, M.D.

Summary:

Objectives: This retrospective chart review compared the effects of typical and atypical antipsychotic medications on electrocardiographic parameters in a group of medicated schizophrenic or schizoaffective outpatients. We hypothesized that QTc interval would be significantly longer among patients treated with atypical neuroleptics.

Design and Methods: The subjects were neuroleptic-treated outpatients meeting DSM-IV criteria for schizophrenia or schizoaffective disorder followed at the Veteran's Administration Hospital in the Bronx. We identified patients who were switched over the last five years from a typical to an atypical neuroleptic (i.e., risperidone, olanzapine, quetiapine, clozapine) or vice versa and collected and analyzed all their routinely completed standard 12-lead electrocardiogram (EKG). The EKG data were extracted from the computerized reports reviewed by cardiologists. The patients were not selected with respect to comorbid psychiatric diagnoses, medical histories, or concomitant medications. Within subject and between groups comparisons were conducted.

Results: Several differences between the two groups of neuroleptics emerged. Detailed description of the changes seen with atypical neuroleptics will be presented.

Conclusions: The impact of atypical neuroleptics on electrocardiographic parameters may have cardiovascular correlates of clinical relevance.

NR149 Monday, May 17, 3:00 p.m.-5:00 p.m. Substance Abuse and Treatment Response in First-Episode Schizophrenia

Rosalind G. Hoffman, M.D., Hillside Hospital Research, 75-59 263rd Street, Glen Oaks NY 11004; Nina R. Schooler, Ph.D., Jose M.A. Alvir, Ph.D., Delbert G. Robinson, M.D., Julia A. Becker, M.D., Alan J. Mendelowitz, M.D., Handan Gunduz, M.D.

Summary:

A sizable proportion of first-episode schizophrenic patients abuse alcohol and drugs. Prior studies suggest that substance-abusing patients differ from other schizophrenic patients' etiology and response to antipsychotic medication. However, previous data are limited regarding treatment response of substance-abusing, first-episode patients to new generation antipsychotic medications or to low doses of older agents. The objective of this study was to investigate the relationship of substance abuse and treatment response in the early course of schizophrenia.

Successive cohorts of patients were treated with clozapine, risperidone, olanzapine, and low-dose fluphenazine. The length of time for treatment response was compared between those with (n=12) and those without substance abuse (n=49). Patients without substance abuse (N=49) had a 13-week median response time (95% confidence interval of seven to 17 weeks). Patients with a substance abuse history had a 24-week median response time (95% confidence interval of two to 80 weeks). Clinical response to antipsychotic medication may be delayed in substance-abusing, first-episode patients. Larger studies will clarify whether the apparent difference in time to response is valid and allow examination of differences among medications.

NR150 Monday, May 17, 3:00 p.m.-5:00 p.m. Substance Abuse and Schizophrenia Treatment

Rebecca J. Hopkins, 114A East Cherry Street, Palmyra PA 17078; Paul A. Kettl, M.D.

Summary:

Objective: We examined the treatment differences between chronically ill patients with and without substance abuse.

Method: A retrospective chart review of 104 patients with schizophrenia, schizoaffective disorder, or schizophreniform disorder

admitted to a state hospital was conducted. Two-tailed T tests were used to analyze the data.

Results: Fifty-six of 104 patients had a history of substance abuse documented in their charts. Substance abuse patients were younger than patients with no substance abuse (39.3 years vs. 51.6 years, $p<0.01$), and 80% of substance abuse patients were male. Substance abusers had an earlier age of first hospitalization (21.66 vs. 25.92, $p = 0.011$) and more prior hospitalizations (15.4 vs. 11 for the no substance abuse group, $p = 0.021$). Substance abusers had a shorter length of stay (34.2 months vs. 76 months, $p = 0.021$). No difference was found between the groups in marital status or in living arrangement before admission.

Conclusion: These data suggest that patients with substance abuse and chronic psychotic illness have an earlier age of onset and require more hospitalizations.

NR151 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Effects of Risperidone on Negative Symptoms and Neurocognitive Functions in Patients with Schizophrenia

Dong-Woo Kang, M.D., Department of Psychiatry, Samsung Seoul Hospital, 50 Ilwon-Dong, Kangnam-Gu, Seoul 135-710, Korea; Eyong Kim, M.D., Kyung-Sue Hong, M.D., Man-Kil Seo, M.D., Sung-En Sohn, M.D., Jong-Min Woo, M.D., Doh-Kwan Kim, M.D.

Summary:

Objective: It is still controversial whether negative symptoms and cognitive deficits of schizophrenia change in response to atypical neuroleptics. This study aims at evaluating the effect of an eight-week trial of risperidone on negative symptoms and neurocognitive functions in acutely exacerbated, chronic schizophrenic patients.

Method: The subjects were 24 inpatients with chronic schizophrenia with current exacerbation of their psychotic symptoms. Pre- and post-treatment levels of vigilance, continuous attention, fine motor coordinations, and the speed of information-processing were assessed by standardized computerized neurocognitive function tests. Clinical symptoms were assessed by the Positive and Negative Syndrome Scale. Mean dosage of risperidone at the eighth week of trial was 8.8mg/day. Pre- and post-treatment cognitive levels were compared with paired t-test.

Results: There were no statistically significant differences between pre and post-treatment neurocognitive functional levels despite marked improvements of the positive and the negative symptoms. At baseline and after treatment, neurocognitive functional levels were not correlated with the levels of positive or negative symptoms.

Conclusions: Our data suggest that an eight-week trial of risperidone has little effect on attention, information-processing, and fine motor coordinations of acutely exacerbated, chronic schizophrenic patients.

NR152 Monday, May 17, 3:00 p.m.-5:00 p.m.
Korean Version of the Occupational Stress Inventory: A Preliminary Study of Standardization

Dong-Woo Kang, M.D., Department of Psychiatry, Samsung Seoul Hospital, 50 Ilwon-Dong, Kangnam-Gu, Seoul 135-710, Korea; Dong Su Lee, M.D., Ji-Hae Kim, Ph.D., Wou Sang Han, M.D., Jong-Min Woo, M.D., Young Gun Ko, M.A.

Summary:

Objective: The aims of this study were to evaluate occupational stress in Korea and to prepare for standardization of the OSI in its Korean version. This study was performed to find the key demographic variables that could affect the results to be used in further studies.

Method: The OSI was translated into Korean. Fourteen bilinguals were given the tests in both Korean and English to compare the performance consistency. The Korean version of the OSI questionnaires were given to 787 (male: 600, female: 187) subjects; white-collar employees, technicians, security guards, and military soldiers aged from 20-55. We analyzed demographic variables that could affect the results in these tests.

Results: The correlation analysis revealed that perception and response to stress were significantly correlated with age, salary, length of employment, sex, and occupation. Some scales, such as role ambiguity, responsibility, vocational strain, and interpersonal strain, were different between male and female subjects. Hierarchical regression analysis of age, salary, education, and length of employment, which were highly correlated, showed that salary was the most significant variable. Covariance analysis (age, salary, education, and length of employment) showed significant difference of OSI score according to occupation.

Conclusion: This study suggests that in determining the norm of the OSI, it is necessary to divide the subgroups according to sex and occupation. The OSI in its Korean version should be developed through the reliability and validity test in the basis of this preliminary study.

NR153 Monday, May 17, 3:00 p.m.-5:00 p.m.
Soft Neurologic Signs in Schizophrenia

Jaegyeong Kim, M.D., Department of Psychiatry, Samsung Seoul Hospital, 50 Ilwon-Dong, Kangnam-Gu, Seoul 135-710, Korea; Soh-Yeon Ahn, M.A., Kyung-Sue Hong, M.D., Ji-Hae Kim, Ph.D., Sang-Ick Lee, M.D., Eyong Kim, M.D.

Summary:

Objective: Previous studies have reported soft neurological signs and frontal lobe dysfunction in schizophrenia, and these can be important cues in pursuing the organic basis of the schizophrenic process. The aim of this study is to evaluate the soft neurological signs and frontal lobe dysfunction of schizophrenic patients and to test whether these deficits are related to clinical states and medication status.

Method: The subjects were 20 schizophrenic inpatients with active psychotic symptoms, and the controls were 20 normal volunteers. Soft neurological signs were assessed by Cambridge Neurological Inventory (Part 2), and frontal lobe functions were assessed by Trail Making Test, Stroop Test, and word-fluency test. Clinical symptoms were assessed by the Positive and Negative Syndrome Scale. The patients were evaluated at pre-treatment and after remission of their active psychotic symptoms.

Results: Schizophrenic patients showed significantly more soft neurological signs and significantly lower performance in Trail Making and Stroop tests compared with normal controls even after clinical improvement. There were no significant differences between pre- and post-treatment levels of soft neurological signs and frontal lobe dysfunction despite significant clinical improvement.

Conclusions: These results suggest that soft neurological signs and frontal lobe dysfunction in schizophrenic patients are independent of clinical symptoms and medication status.

NR154 Monday, May 17, 3:00 p.m.-5:00 p.m.

Satisfaction and Outcomes with a New Multidisciplinary Clinic: Models for Stable Outpatients with Severe Mental Illness

Ravi S. Kirbat, M.D., Department of Psychiatry, University of Michigan, 1500 E Medical Center Drive, Ann Arbor MI 48109; Mona Goldman, Ph.D., Lorelei Simpson, B.S., Marcia T. Valenstein, M.D., Karen K. Milner, M.D, Sheila M. Marcus, M.D.

Summary:

Objective: To study patient satisfaction and outcomes for a new clinic model for stable psychiatric patients, emphasizing medication maintenance, low-intensity case management, opportunities for socialization, and brief, crisis-oriented, psychotherapy.

Methods: The model was instituted at two sites, a community mental health clinic (n=48) and a university-based outpatient clinic (n=46). Patients rated their satisfaction, symptomatology, functioning, and quality of life at clinic entry and six-month follow-up using a battery based on the CSQ-8, QOLI (subjective scale), and BASIS-32. Providers rated patient functioning and severity of illness using the GAF and CGI scales, respectively.

Results: Preliminary data suggest that patient satisfaction with services increased at both sites, while self-reported functioning, and quality of life remained stable. At the university clinic, which served patients with a broader range of functioning, satisfaction was least among patients with the lowest and highest levels of functioning. This relationship was not seen at the community clinic. Providers felt that clinic goals were met at both sites, though overall satisfaction was greater at the community-based clinic.

Conclusion: A clinic model emphasizing multidisciplinary mental health services and opportunities for socialization increases satisfaction, particularly among patients with moderate functioning, while maintaining stable symptomatology and functioning. Providers were also highly satisfied with the clinic model.

NR155 Monday, May 17, 3:00 p.m.-5:00 p.m.

Automated Analyses Reveal No Delta Sleep Deficits in Schizophrenia

Ravi S. Kirbat, M.D., Department of Psychiatry, University of Michigan, 1500 E Medical Center Drive, Ann Arbor MI 48109; Alan S. Eiser, Ph.D., James E. Shipley, M.D., Alan B. Douglass, M.D., Rajiv Tandon, M.D.

Summary:

Objectives: Some, but not all, EEG-sleep studies have documented delta sleep deficits in schizophrenia. It has been suggested that automated, rather than visual, analysis might be more sensitive in detecting this abnormality. The objective of this study was to apply automated analysis to this question and further explore the observation that delta sleep deficits in schizophrenia are most prominent in the 1-2 Hz frequency range.

Methods: We studied 13 unmedicated DSM-III-R schizophrenic patients and 15 matched normal controls. Delta sleep-measures were analyzed by automated period amplitude analysis utilizing a Sleep Analyzing Computer.

Results: Schizophrenic patients did not demonstrate any reduction in delta sleep measured by delta wave counts or by delta integrated amplitude (DIA). No differences were noted between patients and controls in DIA in the specific 1-2 Hz frequency band.

Conclusions: Our data do not corroborate previous findings of delta sleep deficits in schizophrenia, particularly in the 1-2 Hz frequency range. About half the studies thus far have failed to demonstrate such deficits; in our sample we were unable to document this abnormality even with the use of the "more sensitive" automated analysis. While further studies to elucidate this abnormality are indicated, caution is warranted in drawing any firm conclusions from the still weak findings of delta sleep deficits in schizophrenia.

NR156 Monday, May 17, 3:00 p.m.-5:00 p.m.

The Effects of Antipsychotic Medications on the Lipid Profile in Schizophrenia

Sherley Millet, M.D., Bronx VAMC, 130 West Kingsbridge Road, Bronx NY 10468; Lyonel Benoit-Rock, M.D., Irish Crisanto, M.D., Sarah Ballou, B.A., Denise Frank, B.A., Julie Kim, B.A., Robert G. Stern, M.D.

Summary:

Objectives: This retrospective study compared the effects of typical and atypical antipsychotic medications on the lipid profile of a group of medicated schizophrenic or schizoaffective outpatients. We hypothesized that the lipid levels would be significantly increased in the group of patients treated with atypical neuroleptics.

Design and Methods: The review covered laboratory results obtained over a period of two years with other parameters including demographics, treatment agents, and respective dosages. The patients were not selected with respect to comorbid psychiatric diagnoses, medical histories, or concomitant medications. Within-subject and between-groups comparisons were conducted.

Results: When compared with patients treated with typical agents, patients treated with the atypical had higher triglycerides levels. Among the atypical agents, clozapine was found to have the highest triglycerides level. HDL was significantly higher in patients treated with the conventional vs. atypical agents. Detailed description of the results obtained will be presented.

Conclusions: Given the impact of atypical neuroleptics on the lipid levels of schizophrenic patients, that population should be monitored carefully in order to prevent cardiovascular disease as a complication of treatment.

NR157 Monday, May 17, 3:00 p.m.-5:00 p.m.

MRI Study of Cavum Septi Pellucidi in Schizophrenia

Mary P. Pegues, M.S.W., Department of Psychiatry, VA Medical Center, 4150 Clement Street, 116N, San Francisco CA 94127; Diane Amend, Ph.D., Raymond F. Deicken, M.D.

Summary:

Objectives: Recent studies have yielded discrepant results as to whether the incidence of enlarged CSP is higher in schizophrenics vs. controls. One study also noted a significant correlation between enlarged CSP and diminished hippocampal volumes in male schizophrenics, suggesting an association between these two midline neurodevelopmental abnormalities in schizophrenia. The purpose of this study is to: (1) compare the incidence and enlargement of CSP in a group of male schizophrenics vs. male controls, and (2) determine if there is a relationship between enlarged CSP and decreased hippocampal volumes.

Methods: MRI was performed on 33 medicated male schizophrenics and 19 normal male controls, using a Siemens Maunetom Vision System and included coronal MP RAGE images. Cavum was examined on coronal slices and rated with the method used by Napoulos, et al (1997).

Results: CSP was present in 32 of the 33 patients and 18 of the 19 controls. The incidence of large CSP was not significantly different between the two groups (22% patients, 40% controls, X^2=1.46, p< .25). No significant correlations were found between enlarged CSP and either right (r =-.15, p=0.55) or left (r=-.10, p=0.68) hippocampal volumes in a subgroup of this sample (18 patients). There was also no significant difference in hippocampal volumes between schizophrenics and controls in this subgroup.

Conclusions: These results suggest that midline neurodevelopmental abnormalities do not appear to be present in certain subgroups of the schizophrenic population.

NR158 Monday, May 17, 3:00 p.m.-5:00 p.m.
Evaluation of the Factors Interfering with Drug Treatment Compliance Among Brazilian Patients with Schizophrenia

Moacyr A. Rosa, M.D., Department of Psychiatry, Hosp Clinicas, Dr Ovidio Pires de Campos S/N, Sao Paulo SP 05403010, Brazil; Marco A. Marcolin, M.D.

Summary:

Noncompliance has a rate as high as 50%. We've selected 50 schizophrenic outpatients (DSM-IV criteria), taking neuroleptics. In the first interview we collected demographic, diagnosis, and other treatment variables and applied BPRS and (Rating of Medical Influences) scales. Monthly, we evaluated the mental status (BPRS) and treatment compliance (using family written report). Missing two consecutive appointments and/or taking less than 75% of the medication was considered noncompliance, the group with a significantly worse evolution in severity of psychiatric symptoms (p 0.05). The ROMI scale provided data about compliance factors. "Perceived daily benefit" was the most important factor to compliance (88%), followed by "positive family belief," "prevention of relapse," and others that are presented. "Distressed by side effects" was the most important factor to noncompliance (36%), followed by "denial of illness," "medication currently unnecessary", "stigma," and "no perceived daily benefit." A total of 40% of the patients said there were no factors leading to noncompliance. Interestingly, "substance abuse" was not found to be important in our sample. Our results are similar to those found in the literature. Noncompliance rates are high and must be taken into account in any treatment program. We found 48% of noncompliance over one year. Demographic factors weren't important.

NR159 Monday, May 17, 3:00 p.m.-5:00 p.m.
Polypharmacy in Patients with Schizophrenia

Aida T. Ruiz, M.D., Department of Psychiatry, University of Chile, Avenida La Paz 1003, Santiago 70010, Chile; Jaime Santander, M.D., Eduardo Miranda, M.D., Rafael Blanco, M.D.

Summary:

Objective: The treatment of schizophrenia usually include neuroleptics, however, most of the patients receive several psychotropic drugs. The objective of this study was to analyze the frequency and nature of polypharmacy in a sample of Chilean patients.

Method: A sample of 400 schizophrenic patients was selected according to DSM-III-R criteria from the files of the University Psychiatric Clinic and retrospectively studied. The type of medications and drug combinations given to the patients were examined. Chi-squared and Z test were used to analyze the data.

Results: The most frequently prescribed drugs were: oral neuroleptics (NLP) (94.0%); benzodiazepines (BZDP) (61.5%); antiparkinsonian medication (ATP) (46.0%), and depot neuroleptics (25.5%). Drug combinations were used in 92.3% of the cases. The most common combinations were: oral NLP, BZDP, and ATP (27.0%); oral NLP and BZDP (14.3%); oral NLP, depot NLP, and BZDP (8.8%); oral NLP and ATP (6.3%). There were no significant differences in the analysis by sex.

Conclusions: The appropriate use of drug combinations can be useful in the treatment of schizophrenia; however, the risk of side effects and medication interactions must be considered.

NR160 Monday, May 17, 3:00 p.m.-5:00 p.m.
Early Age of Onset of Schizophrenia in a Chilean Sample of Patients

Aida T. Ruiz, M.D., Department of Psychiatry, University of Chile, Avenida La Paz 1003, Santiago 70010, Chile; Rafael Blanco, M.D., Jaime Santander, M.D., Eduardo Miranda, M.D.

Summary:

Objective: Numerous studies have shown an earlier onset of schizophrenia in males. Sex differences in onset remain despite ethnic and cultural diversities. A similar sexual dimorphism has been observed in Chile. The objective of this study was to compare our data with the results of foreign studies.

Method: A sample of 369 schizophrenic patients was selected according to DSM-III-R criteria and retrospectively studied. The age of onset was defined using the following criteria: age at first psychiatric symptoms, age at first treatment, and age at first hospital admission. The age of onset of the Chilean patients was compared with the results obtained in European and North American studies, which had used similar criteria. The data were analyzed by means of t-test.

Results: The mean age of onset of schizophrenia in the Chilean patients was significantly earlier than that found in European and North American samples (p<0.05), using the three criteria of onset mentioned above. The difference was significant both in the total sample and in the comparison by sex.

Conclusions: This sample of Chilean schizophrenic patients presented an earlier onset of illness in comparison with foreign studies. The possible sociocultural and biological reasons of this finding are commented on.

NR161 Monday, May 17, 3:00 p.m.-5:00 p.m.
Premorbid Academic Dysfunction and Negative Symptoms in Schizophrenia

Elaine A. Sandler, M.D., Department of Psychiatry, University of Michigan, 1500 E Medical Ctr Drive, Ann Arbor MI 48109; Claire L. Tuthill, M.D., Lorelei Simpson, B.S., Denise Gribbon, M.D., Mona Goldman, Ph.D., Rajiv Tandon, M.D.

Summary:

Objectives: This study was designed to examine the relationship between the academic and social dimensions of premorbid dysfunction in schizophrenia and the development of enduring negative symptoms.

Methods: We studied 168 schizophrenic inpatients (DSM-III-R) comprised of 112 males and 56 females. Premorbid function was assessed by the Canon-Spoor Premorbid Adjustment Scale

(PAS). Patients were assessed after three to four weeks of antipsychotic treatment. Negative symptoms were assessed using the Scale for the Assessment of Negative Symptoms (SANS) and positive symptoms by the BPRS. Dimensions of premorbid dysfunction at different ages (childhood, early- and late adolescence, adulthood) were assessed by principal components analysis. Contributing factors to post-treatment negative symptoms (positive symptoms, depression, academic and social premorbid dysfunction, age, gender, etc.) were assessed by multiple regression analysis.

Results: Two dimensions of premorbid functioning —academic and social— were identified. Academic dysfunction during childhood and early adolescence was significantly related to post-treatment negative symptoms. Premorbid social functioning was not related to post-treatment symptomatology. This relationship was independent of current age, positive symptoms, and pre-treatment negative symptoms. It was similar in males and females.

Conclusions: These data indicate that premorbid dysfunction contributes to enduring negative symptoms and that academic premorbid dysfunction marks a process associated with the development of these symptoms.

NR162 Monday, May 17, 3:00 p.m.-5:00 p.m.
Sulpiride for Schizophrenia: A Systematic Review

Bernardo G.O. Soares. M.D., Department of Psychiatry, UFPEL, XV de Novembro 1081 Pelotas RS 96015, Brazil; Mark Fenton, M.D., Mauricio S. Lima, Ph.D., Pierre Chue, M.D., Clive E. Adams, M.Sc

Summary:

Overall Educational Objectives: Recognize sulpiride as a valuable option in the treatment of schizophrenia. Considering its similar efficacy and lower tendency of causing extrapyramidal side effects when compared to the classic antipsychotics, sulpiride may be a good cost-effective alternative for the treatment of schizophrenia.

Objectives: Sulpiride is a drug said to have a better action on negative symptoms of schizophrenia and a lower tendency for induction of movement disorders, when compared with the traditional antipsychotics. Wherever sulpiride is a real alternative to the expensive new atypical drugs is unknown. A systematic review and metaanalysis was undertaken aiming to clarify these points.

Methods: Searches of electronic databases such as EMBASE, MEDLINE, and Cochrane Library were supplemented by reference searching and contacting authors. Data were independently extracted and analyzed on an intention-to-treat basis. Relative risk (RR) and 95% confidence intervals (CI) of dichotomous data were calculated with the random effects model.

Results: Data from 18 randomized clinical trials and 982 patients were included. Results on Global Impression favored sulpiride when compared with typical antipsychotics but without reaching statistical significance (RR 0.85; CI 0.64-1.13). Akathisia and dyskinesia were less frequent in those taking sulpiride, the same occurred with the use of antiparkinson drugs (RR 0.73, CI 0.59-0.90). Those taking sulpiride had a nonsignificant higher occurrence of galactorrhea.

Conclusions: Sulpiride may be an effective antipsychotic with a favorable side effects profile but evidence is limited regarding efficacy on negative symptoms.

NR163 Monday, May 17, 3:00 p.m.-5:00 p.m.
Parkinsonism in Geriatric Inpatients with Schizophrenia

Carolina Stamu, M.D., Department of Psychiatry, Mount Sinai Hospital, One Gustave Levy Place, New York NY 10029; William M. Byne, M.D., Leonard White, Ph.D., Michael Parella, Ph.D., Philip D.Harvey, Ph.D., Kenneth L. Davis, M.D.

Summary:

Objective: To study the prevalence of parkinsonism in geriatric schizophrenic inpatients and in the context of variables such as age, sex, cognitive status, age at first hospitalization, medication regimen.

Method: We determined the prevalence of parkinsonism in a cohort of chronic geriatric schizophrenic inpatients (N=101) at Pilgrim Psychiatric Center (Brentwood, NY) and examined the relationship between parkinsonism and cognitive variables (MMSE, word recall, praxic drawing, Boston naming, category fluency) in relationship to age, sex, duration of illness, and current medication regimen.

Results: The prevalence of parkinsonism was 25% and was higher (p=.02) in males (35%) than in females (15%) although there was no sex difference in age, duration of illness, or current medication. Cognitive variables did not differ between subjects meeting and not meeting criteria for parkinsonism, nor was there a significant correlation between cognitive variables and parkinsonism severity scores. Independent of age, duration of illness, and current medication regimen, bradykinesia correlated with MMSE (r=-.250, p=.018). Tremor and rigidity did not correlate with MMSE.

Conclusions: The negative correlation between bradykinesia and MMSE suggests that schizophrenia-associated dementia may involve a subcortical substrate.

NR164 Monday, May 17, 3:00 p.m.-5:00 p.m.
Visuospatial Information Processing in Schizophrenia: A Pilot Study

Cenk Tek, M.D., Department of Psychiatry, University of Maryland, PO Box 21247, Baltimore MD 21228; James M. Gold, Ph.D., Caleb A. Queern, B.A., Robert W. Buchanan, M.D.

Summary:

Objective: Prefrontal cortex dysfunction and in particular working memory (WM) deficits have been proposed to be underlying the cognitive deficits seen in schizophrenia. Relatively few studies addressed the visual component of working memory and generally reported spatial (i.e., WM of location) deficits in contrast to object (i.e., WM for shapes and colors) WM. Delayed recognition paradigms are typically used in visuospatial WM studies and these generally assume intact visuospatial information processing. However, there is some evidence of early spatial information processing deficits in schizophrenia in contrast with shapes and colors. In a small pilot study we tried to address possible visuospatial information processing deficits in schizophrenia.

Method: Seven schizophrenics and 12 controls were tested with a slight modification of the perceptual component of a classic delayed recognition paradigm for location or shapes of objects. In this perceptual paradigm the delay is extremely short (250 msec) as compared with working memory paradigms where the delay is typically a few seconds and it is theorized that it measures the initial recruitment of visual information. Each subject is tested with a minimum of eight 40-trial blocks for both conditions after sufficient practice. Each block presented the targets

in different duration of time varying between 20 and 3500 msec. Normal controls were not tested above 700 msec due to ceiling effects.

Results: Performances of both groups in both conditions were highly correlated with the exposure duration of targets in the experiment. A repeated measures ANOVA was run separately for spatial and object conditions, schizophrenia as the grouping factor and target duration as repeating factor (at 700, 350, 175, 90, 20 msec). For both conditions both target duration and having schizophrenia had significant effects on performance but not the interaction between these two. When tested at same target duration, schizophrenics performed significantly worse than normal controls. On the other hand, schizophrenics' performance at very long target duration blocks were comparable with normal controls' performance at short target duration blocks.

Conclusions: Though this pilot study is limited because of the small number of subjects, it suggests a generalized visual information deficit in schizophrenia which seems to be independent from other factors. Presence of such a deficit would contribute to a possible working memory deficit significantly. We are currently running a larger visuospatial working memory study where this deficit is taken into account.

NR165 Monday, May 17, 3:00 p.m.-5:00 p.m. Progression of Premorbid Dysfunction in Schizophrenia

Claire L. Tuthill, M.D., Department of Psychiatry, University of Michigan, 1500 E Medical Center Drive, Ann Arbor MI 48109; Elaine A. Sandler, M.D., Denise Gribbon, M.D., Lorelei Simpson, B.S., Mona Goldman, Ph.D., Rajiv Tandon, M.D.

Summary:

Objectives: The objective of this study was to assess whether premorbid dysfunction in schizophrenia is static or progressive.

Methods: We studied 168 schizophrenic inpatients (DSM-III-R) comprised of 112 males and 56 females. Premorbid function was assessed by the Canon-Spoor Premorbid Adjustment Scale (PAS) utilizing at least two family members as informants. A variety of sociodemographic and clinical attributes were also assessed.

Results: About 35% of the schizophrenic patients were found to exhibit significant premorbid dysfunction. Premorbid dysfunction progressively increased from childhood through early adolescence to late adolescence and adulthood, as reflected by increasing PAS scores with increasing premorbid stage. There was a significant correlation between premorbid function scores (0.5 - 0.9) at the different stages. Greater dysfunction was associated with an earlier age of onset. There were no gender differences in childhood, early and late adolescence PAS scores, although males exhibited worse adult premorbid function than females.

Conclusions: Our data indicate that premorbid dysfunction in schizophrenia is progressive. Our data further suggest that premorbid dysfunction at different ages in schizophrenia may represent a continuation of the same process. These data have implications for the neurodevelopmental and neurodegenerative hypotheses of schizophrenia.

NR166 Monday, May 17, 3:00 p.m.-5:00 p.m. Prevalence of Bleuler's Schizophrenia in a Psychiatric Hospital 1985-1986

Dr. Natividad Vicente, Department of Psychiatry, CSM Torrejon De Ardoz, Madrid, Spain; Dr. Enriqueta Ochoa, Berta Rios, M.D., Dr. Helena Diaz

Summary:

Introduction: The diagnostic validity of simple schizophrenia has been discussed since the description made by Bleuler. This is characterized by the fact that simple schizophrenia shows present fundamental symptoms of schizophrenia but not accessory symptoms (hallucinations, delusions, and catatonic behavior). The objective of this study is to establish the prevalence of diagnosis of simple schizophrenia according to Bleuler's description

Method: The authors review all clinical histories of patients admitted to the Madrid Psychiatric Hospital between January 1985 and December 1996, who had been diagnosed with simple schizophrenia. We selected those which best fit Bleuler's original definition.

Result: Of 2,278 patients diagnosed with schizophrenia, 30 (0.43%) were diagnosed as simple schizophrenia. 66% men, 90% unemployed. 60% showed good premorbid adjustment. Reason of admission: *trastornos de conducta.* 100% did not show sensoperceptive alterations neither *delirantes* behaviors. During evolution 100% showed *deterioro* and only 33% fit Bleuler's definition.

Conclusions: A small but significative group of patients fit completely the diagnosis of simple schizophrenia according to Bleuler with characteristics clearly established.

NR167 Monday, May 17, 3:00 p.m.-5:00 p.m. Peculiarities of Clinical Picture of Paranoid Schizophrenia in a Case of Chronic Stressful Experience

Arman K. Danielyan, M.D., Department of Psychiatry, National Institute of Health, 7 Aghayan Street, # 18, Yerevan 375009, Armenia; Konstantin G. Danieuyan, Ph.D., Susanna H. Hairapetyan, R.N.

Summary:

Objectives: The questions of inter-influence of endogenous, i.e., schizophrenic, and exogenous, i.e., psychogenously conditioned, factors are not explored enough. Our report is concerned with the questions of consequences of the influence of chronic stressful factors on the clinical picture of paranoid schizophrenia.

Methods: Clinical observation of 58 patients during the last four years was performed.

Results: Under the influence of chronic psychotraumatic factors (consequences of the earthquake in Armenia in 1988, economical blockade, low level of social security) the features of chronic nonpsychotic subdepression are becoming a comorbid to the main symptoms of paranoid schizophrenia. The content of depressive ideas represent the stressful factors experienced in the past. Under the influence of chronic stress, the illness changes its pattern of course from continuous with no remission of psychotic symptoms toward episodic remittent type. The symptoms of psychogenous subdepression of neurotic level do not disappear even in the period of remission, bringing consequently, to the personality changes of schizophrenic type.

Conclusions: Chronic stress modifies on a noticeable level the clinical picture of paranoid schizophrenia, implementing its pathoplasty into the clinical picture of schizophrenia. Mentioned peculiarities are so specific that it could be worth differentiating psychogenously modified types of paranoid schizophrenia.

NR168 Monday, May 17, 3:00 p.m.-5:00 p.m.
Impact of Aftercare in Addiction Treatment

Gagan S. Dhaliwal, M.D., Department of Psychiatry, EVMS, PO Box 1980, Norfolk VA 23501; Baljit S. Gill, M.D., Don Doherty, M.D., Lisa Fore Arcand, Ed.D.

Summary:

Objective: To demonstrate if successful completion of aftercare results in reduction of inpatient rehospitalization with active substance abuse and how different variables, comorbidities, and type of substance abuse affect the recovery process.

Methods: A retrospective medical records review of 186 patients referred to aftercare in 1994 (after rehabilitation treatment) at Veteran's Administration Medical Center, Hampton, was done. The subjects who either moved away from the geographic area or died during a three-year followup were excluded. The number of rehospitalizations with active substance abuse during these three years was considered. This rehospitalization rate in aftercare completers was compared with that of aftercare dropouts. The impact of different variables, comorbidities, and type of substance abuse was also studied.

Results: Aftercare completers had fewer hospitalizations (44%) as compared with dropouts (72%). However, different variables, type of substance, and comorbid psychiatric condition affected the final outcome.

Conclusion: In an era of changing trends in psychiatry, completion of aftercare is beneficial in reducing acute E.R. visits and rehospitalization with active substance abuse. Therefore, efforts to increase aftercare completion are recommended. Furthermore, associated psychiatric diagnosis, type of substance abuse, and comorbid psychiatric diagnosis should be considered in treatment.

NR 169 Monday, May 17, 3:00 p.m.-5:00 p.m.
Emergency Treatment of Depression: Use of ECT and Reboxetine

Parrukh Hussain, M.D., Department of Psychiatry, St. Martins Hospital, Little Bourne Road, Canterbury Kent CT11AZ, United Kingdom; Kachappilly Gmacious, M.D.

Summary:

Severe depression can be a psychiatric emergency. Use of specific psychotheraputic techniques for these situations has not been researched. Claims of tricyclic antidepressants' rapid onset of action may be actually due to their sedative action as measurements on Hamilton Rating Scales show. Clomipramine and and venlafaxine in high doses both acting on noradrenergic and seroronergic systems show early response in a number of responders. Use of electroconvulsive therapy (ECT) often results in a relative rapid antidepressant effect. Some severely depressed persons need ECT and antidepressants as combined therapy.

Some studies have suggested that following a series of electrically induced seizures in rats there is increased turnover of norepirephrine and possibly a net increase in both brain level and synthesis of norepirephrine. Reboxetine a non-tricyclic selective inhibitor of norepirephrine uptake has recently become available in UK. The selectiveness of reboxetine may be useful in providing an alternative for those resistant to SSRI, and its use along with ECT has proven useful in emergency treatment of depression.

NR170 Monday, May 17, 3:00 p.m.-5:00 p.m.
Prevalence of Depression and Its Relationship with Mortality/Morbidity in Patients with Heart Failure

Wei Jiang, M.D., Department of Psychiatry, Duke University Medical Center, Box 3366, Durham NC 27710; K. Ranga R. Krishnan, M.D., Jude R. Alexander, M.D., Eric J. Christopher, M.D., Maggie Kuchibhalla, Ph.D., Christopher O'Connor, M.D.

Summary:

Previous studies have indicated that patients with medical illnesses, especially coronary artery disease, suffer high rates of depression, which is associated with high mortality and morbidity. However, such relationship has not been studied in patients with chronic heart failure (CHF). We conducted a survey to examine the prevalence of depression and its impact on mortality and morbidity in CHF population.

Patients with a clinical diagnosis for CHF and/or patients with heart diseases and left ventricular ejection fraction below 35% hospitalized for cardiac problems at DUMC were approached for the survey from April 1997 to June 1998. A total of 374 patients consented to participation. They were first given BDI, then underwent DIS interview if their BDI scored $\geq$10. All the participants were then contacted at three months after the initial assessment for events such as death and rehospitalization.

One third of patients had BDI scores 10 or higher. In comparison to patients whose BDI scores were less than 10, those patients have higher rate for death (15.2 vs. 7.0), cardiac events (31.3 vs. 15.0). Results of multiple regression with age, Killip class, and scores of BDI show in table (results of DIS assessment is to be reported).

In conclusion, CHF patients have high prevalence for depression, which is associated with greater than three times higher rate of mortality and rehospitalization at three months follow-up than patients who are less depressed.

event	OR (p value)	95% CI
overall	2.43 (0.001)	1.42-4.16
death+cardiac	3.25 (0-0001)	1.86-5.67

NR171 Monday, May 17, 3:00 p.m.-5:00 p.m.
Quality of Evidence in the APA Practice Guideline for Alzheimer's Disease

Jagoda Pasic, M.D., Department of Psychiatry, University of Washington, Box 356560 School of Medicine, Seattle WA 98195; Soo Borson, M.D., Efthimis Efthimiadis, Ph.D.

Summary:

Objective: A recent report indicated that APA practice guidelines for psychiatric disorders are based largely on evidence derived from non-randomized, uncontrolled trials. That report was limited to quantitative analysis of the overall quality of evidence. This study assesses the quality of evidence used in APA Practice Guideline for Alzheimer's disease (AD) by focusing on areas specifically deficient in high-quality evidence.

Methods: Evidentiary quality was assessed by identifying citations from (A) randomized-controlled studies, (B) clinical trials, (C) longitudinal studies, (D-G) retrospective/secondary data, and analyzing them according to treatment principles relevant to AD management (psycho-education, psychotherapy-psychosocial interventions, pharmacological options for cognitive loss, psychosis/agitation, depression, sleep).

Results: On the whole, the distribution of citations was: (A) 25%, (B) 19%, (C) 6%, (D-G) 50%. Distribution of the evidence

according to the treatment options was: psychotherapy-psychosocial intervention (A) 20-32%, treatment of: cognitive loss (A) 73-85% (cholinesterase inhibitors, selegiline, ergoloid-mesylates) and (A) 25% (vitamin-E, NSAID, estrogen), psychosis/agitation (A) 35-45%, depression (A) 14%, sleep (A) 17%; psycho-education (A) 0%.

Conclusions: Results of this study indicate that high-quality evidence supporting interventions in AD was specifically deficient in the areas of psycho-education, psychotherapy-psychosocial treatments, management of depression, insomnia and disease-modifying treatments with vitamin-E, NSAIDs, and estrogen. Data from new investigations will be required to improve the quality of evidence on which these aspects of AD management are based.

NR172 Monday, May 17, 3:00 p.m.-5:00 p.m.
Blunted Hormonal Response to M-Chlorophenylipiperazine Challenge in Negative Type Patients with Schizophrenia

Joan Salva-Coll, M.D., Department of Psychiatry, Hospital Clinic, Villarroel 170, Barcelona 08036, Spain; Miguel Bernardo, M.D., Joan Gaya, Ph.D., Roser Casamitjana, Ph.D., Immaculada Baezal M.D., Silvia Catarineu, M.Sc., Manel Salamero, Ph.D.

Summary:

Background: Several lines of evidence point to serotonergic abnormalities in patients with schizophrenia. We have previously hypothesized that schizophrenic patients with negative symptoms may have a greater central serotonergic dysregulation than those with positive symptoms.

Objective: This study was undertaken to compare central serotonergic function in positive-type and negative-type schizophrenic patients by examining the neuroendocrine response to the m-chlorophenylpiperazine (mCPP) challenge procedure.

Methods: Eight schizophrenic (R.D.C. criteria) inpatients who had been neuroleptic free for at least two weeks prior to entry into the study were assessed (mean age = 27.5 ± 5.5 years. Positive group: N=6, 3 female; Negative group: N=2, 1 female). After an overnight fast, the subjects received the direct 5-HT receptor agonist mCPP (0.5 mg/Kg p.o.) and hormonal variables (GH, PRL, and ACTH maximum change from baseline) were measured over the subsequent 240 min.

Results: Although we have studied a small group of subjects, preliminary results show that positive-type (PANSS-P > PANSS-N) schizophrenic patients present a greater mCPP induced GH release (ΔGH) compared with negative-type schizophrenic patients.

	Hormonal response	Positive	Negative
Δ PRL (ng/mL)	1.41-48.41	0.9 - 6.5	N.S.
Δ ACTH (pg/mL)	2 - 10 5	1 - 5	N.S.
Δ GH (ng/mL)	6.9 - 11.2	-1.11 - 7.63	p<0.005

Data on a greater sample size will be shown at the meeting, along with the clinical response to antipsychotic treatment.

Conclusions: Our study suggests a blunted hormonal response following mCPP challenge in negative-type compared with positive-type schizophrenic patients. These results may be consistent with a greater dysregulation of central 5HT receptors in schizophrenia with negative symptoms.

Supported by an award from the Hospital Clinic of Barcelona (Premi fi de Residencia-98).

NR173 Monday, May 17, 3:00 p.m.-5:00 p.m.
Relationship of Menstrual-Cycle-Related Changes in Cortical Excitability and Gonadal Steroids

Mark J. Smith, M.D., BEB, NIMH, 10 Center Drive/MSC 1276, Bethesda MD 20892; John C. Keel, B.A., Benjamin D. Greenberg, M.D., Linda F. Adams, B.A., Peter J. Schmidt, M.D., David R. Rubinow, M.D., Eric M. Wassermann, M.D.

Summary:

Estrogen and progesterone are reported to exert opposite effects on cortical excitability. Paired-pulse transcranial magnetic stimulation (pTMS) measures cortical excitability by identifying changes in motor evoked potentials (MEPs) as a function of the latency between paired magnetic stimuli. In a previous pTMS study on normal women, we observed decreased cortical inhibition and increased cortical facilitation (suggesting increased glutamatergic activity relative to GABA activity) in the follicular phase (days 5-11) of the menstrual cycle compared to the luteal phase (days 18-27). To confirm these results and to further define the influence of hormonal factors, pTMS (left primary motor area stimulation, 1-30ms signal latency) was performed in normal women during three phases: early follicular (days 2-5), late follicular (days 9-12), luteal (6-11 days post LH surge). Preliminary results from five of 10 subjects show less intracortical inhibition and greater intracortical facilitation during the late follicular (high estrogen, low progesterone) compared to either the early follicular (low estrogen, low progesterone) or the luteal (high estrogen, high progesterone) phase. pTMS may represent a noninvasive means of evaluating the effects of gonadal steroids on cortical neurotransmitter activity.

NR174 Monday, May 17, 3:00 p.m.-5:00 p.m.
Peripheral Neuroendocrine Aberrations in Postpartum-Onset Major Depression

James R. Strader, Jr., B.S., Department of Psychiatry, Emory University, 1639 Pierce Drive, Atlanta GA 30322; D. Jeffrey Newport, M.D., Alexis M. Llewellyn, B.A., Zachary N. Stowe, M.D.

Summary:

Postpartum-onset major depression has long been thought to be a biologically driven illness. Objective evidence of this is sparse, however, due largely to the difficulty in obtaining a well-defined group for study, and the inherent limitations of study design imposed when assessing pregnant and nursing women and their children. The Emory University Pregnancy and Postpartum Mood Disorders Program was established in 1990 for the exclusive purpose of advancing the understanding and treatment of maternal mood disorders. This case-control study matches 25 symptomatic postpartum women with 25 nonsymptomatic postpartum controls. All symptomatic subjects met DSM-III-R criteria for MDE. Women were matched for breast feeding, psychotropic medication exposure, age, family and personal psychiatric history, and time postpartum (± 1 week). Blood samples were taken from all subjects and analyzed using commercially available RIA kits to assess peripheral indices of HPA, HPT, HPG, and posterior pituitary activity. The mean ± standard deviation BDI and HRSD values for symptomatic versus non-symptomatic groups were 23.48 ± 6.95 vs. 4.96 ± 2.88 (p<0.001) and 20.40 ± 3.63 vs. 5.54 ± 2.15 (p<0.001), respectively. Total cortisol and cortisol binding globulin were significantly higher, and prolactin values significantly lower, in the symptomatic group (total cortisol: 89.54 ± 34.25 ng/ml vs. 69.93 ± 33.24 ng/ml,

p=0.045; CBG: 38.16 ± 12.46 ug/ml vs. 29.76 14.78 ug/ml, p=0.043; prolactin: 23.06 ± 22.40 ng/dl vs. 57.59 ± 56.87 ng/dl, p=0.007). Thus, while controlling for several possibly confounding factors, this study demonstrates evidence of alterations in the HPA axis and serum prolactin in women with PPD. The unexpected differences in prolactin may be indicative of changes in prolactin metabolism or alterations in the neurotransmitter systems (DA, 5HT) that regulate the posterior pituitary. The contribution of prolactin to both mood and maternal behavior warrants further study, as does the potential for finding biologic predictors of treatment response.

NR175 Monday, May 17, 3:00 p.m.-5:00 p.m.
Sensitivity to Light: A Questionnaire

Fulvio Pieraccini, M.D., Department of Psychiatry, University, Viale Bracci 1, Siena 53100, Italy; Sonia Iapichino, M.D., Claudia Pacchierotti, M.D., Letizia Bossini, M.D., Paolo Castrogiovanni, M.D.

Summary:

Abnormal light-related behavior has been observed in psychiatric and neurological diseases (epilepsy, Tourette's disorder, ocular diseases). Previous reports suggest that photophobia is more frequently observed in depressed patients, whereas photophilia is associated with schizophrenia and anxiety disorder. We constructed a questionnaire (23 items) to identify abnormal sensitivity to light and light-related behavior patterns in psychiatric patients. We administered the questionnaire to psychiatric patients (n=200) and to control subjects (n=200). The control subjects were assessed as being free of mental disorders and none of them reported taking any psychoactive medication. Photophobic scores are obtained as a simple sum of positive responses in each of the respective items for photophobia.

The photophobia was more frequently observed in certain psychiatric patients than in control subjects. These results support the hypothesis of a different preference of light intensity in psychiatric patients, but in view of the small sample sizes no firm conclusions can be reached.

NR176 Monday, May 17, 3:00 p.m.-5:00 p.m.
Dopaminergic System and Panic Disorder

Fulvio Pieraccini, M.D., Department of Psychiatry, University, Viale Bracci 1, Siena 53100, Italy; Sonia Iapichino, M.D., Claudia Pacchierotti, M.D., Letizia Bossini, M.D., Paolo Castrogiovanni, M.D.

Summary:

The abnormal sensitivity of some psychiatric patients with regard to light exposure has been described in the literature; photophobia is more frequently observed in depression and anxiety disorders, whereas photophilia is associated with schizophrenia. The link between visual stimulation in eliciting anxiety is mediated by the retinal function. Clinical experience and brief reports show that the onset and the exacerbation of panic attacks is more frequent in the summer and that patients may suffer a hypersensitivity to light. Our study was undertaken to investigate sensitivity to light in patients with panic disorder using electroretinography (ERG), an objective measure of central DAergic activity.

The patients with panic disorder (n=14), without lifetime and intraepisodic psychiatric comorbidity, drug free, were compared with age- and sex-matched control subjects. Electroretinograms were recorded at the ERG laboratory of the Ophthalmological Clinic of the University of Siena. Panic patients had a significantly lower b-wave ERG.

Our results suggest the hypothesis of a deficient adaptation of light stimulation in patients with panic disorder, probably mediated by dysfunction in the central dopaminergic activity. This study indicates that ERG technique may be useful in investigating psychopathological conditions involving central dopaminergic activity.

NR177 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Prevalence and Neuropsychiatric Correlates of Post-Traumatic Stress Symptoms Following Mild Traumatic Brain Injury

Susan K. Hershkop, M.D., Department of Psychiatry, Sunnybrook Centre, 2075 Bayview Avenue, Toronto ON M4N 3M5, Canada; Alison Jardine, O.T., D. Ouchterlony, M.D., Anthony Feinstein, M.D.

Summary:

Objective: To assess 1) the prevalence of posttraumatic stress disorder (PTSD) symptomatology in patients with acute mild traumatic brain injury (TBI); 2) neuropsychiatric correlates of PTSD symptomatology; 3) the clinical significance of PTSD symptomatology.

Method: Fifty-seven patients with mild TBI defined as Glasgow Coma Score ≥ 13, posttraumatic amnesia < 24 hours, and loss of consciousness < 20 minutes were investigated with a neuropsychiatic battery of tests that included Galveston Orientation and Amnesia Test; MMSE; Neurobehavioural Rating Scale (NBRS), and 28-item General Health Questionnaire (GHQ) . PTSD symptoms were recorded using the Impact of Events Scale, a 15-item self-report questionnaire that contains two subscales that are devoted to "intrusive" and "avoidance" symptoms of a traumatic event

Results: 84.2% of patients endorsed PTSD symptoms. Patients with a history of substance abuse, psychiatric diagnosis, litigation, and somatic complaints were significantly more likely to experience PTSD symptomatology. PTSD symptomatic patients were significantly more anxious and depressed, had higher total GHQ scores, and were more impaired on the NBRS than were asymptomatic patients, with no cognitive differences between the two groups.

Conclusion: PTSD symptoms are present early in the recovery phase of mild TBI and are associated with significant psychiatric comorbidity.

NR178 Monday, May 17, 3:00 p.m.-5:00 p.m.
Reduced Cortical Excitability After Capsulotomy for OCD: A Transcranial Magnetic Stimulation Case Study

John C. Keel, B.A., NIH, NIMH/LCS, 10 Center Dr/Bldg I0/Rm 3D41, Bethesda MD 20892; B. Greenberg, M.D., E. Wasserman, M.D., U. Ziemann, Ph.D., L. Justement, R.N., D. Murphy, M.D., S. Rasmussen, M.D.

Summary:

Theories of obsessive-compulsive disorder (OCD) pathogenesis propose hyperexcitability of corticobasal circuits. Findings of reduced cortical inhibition and enhanced excitability in primary motor cortex on paired transcranial magnetic stimulation (pTMS) in OCD are consistent with this view. Neurosurgical treatment with anterior capsulotomy provides significant benefit in a large minority of severe, treatment-refractory OCD patients, possibly

by reducing excitatory corticobasal drive. Reductions in excitatory drive after capsulotomy can be measured with pTMS.

We performed pTMS on a 39-year-old right-handed woman with a long history of crippling OCD one week before and eight months after bilateral gamma-knife anterior capsulotomy. After surgery, OCD symptoms were noticeably but modestly improved. Compared with presurgical baseline, inhibition was essentially unchanged. In contrast, cortical facilitation, thought to reflect activation of glutaminergic mechanisms, was reduced bilaterally, and resting and active motor threshold increased, other indications of reduced cortical excitability.

These preliminary findings suggest that symptomatic improvement after gamma-knife capsulotomy may have occurred in tandem with reduced excitatory cortical input, perhaps from the thalamus. Collection of pTMS data on additional patients pre- and post-gamma knife anterior capsulotomy is underway.

NR179 Monday, May 17, 3:00 p.m.-5:00 p.m.

The Influence of APOE Genotype on Cognitive Recovery After Traumatic Brain Injury

Marina F. Waisman, M.D., Department of Psychiatry, James A. Haley VA, 13000 Bruce D Downs Boulevard, Tampa FL 33612; Patricia I. Ordorica, M.D., Rodney Vanderploeg, Ph.D., Fiona Crawford, Laila Abdullah, B.S., Laura S. Selke, B.S., Michael J. Mullan, M.D.

Summary:

Objectives: To investigate whether APOE status influences the relationship between: (1) initial severity of head injury as measured by length of post-traumatic amnesia, Glasgow Coma Scale and length of coma and; (2) outcome as measured by the initial and follow-up assessments of qEEG, qMRI, and cognition.

Summary: As shown by previous studies, APOE is involved in the repair process after the degeneration caused by TBI and other neuropsychiatric disorders such as Alzheimer's disease. Therefore there is good reason to expect that cognitive outcome will be related to APOE polymorphism. The present study represents a component of the Defense and Veterans Head Injury Program (DVHIP). The DVHIP is a multicenter/multidisciplinary program involving both the Department of Defense and the Veterans Administration. Both MANOVA and MANCOVA statistical procedures, with APOE $\in 4$ presence and dose are used to estimate effects on initial severity of injury (e.g., qMRI, qEEG, Glasgow Coma Score, length of coma, and length of post-traumatic amnesia). In addition, the relationship between APOE $\in 4$ presence/dose and rate of recovery of neurocognitive functions are assessed by repeated-measures MANCOVA. The findings expand the results of previous studies of the association of APOE $\in 4$ and head injury by addressing rate of recovery in addition to initial severity of injury. This neuropsychiatric genetic study is an initial step in the direction of explaining the wide variation in outcomes following traumatic brain injury.

Funded by a Merit Review Grant, Department of Veterans Administration. In collaboration with Roskamp Laboratories/ University of South Florida.

NR180 Monday, May 17, 3:00 p.m.-5:00 p.m.

Title Not Received

Laurent Wiart, M.D., Tour De Gassies, Bruges 33520, France; H. Petit, M.D., Dr. Debelleix, M.D.

Summary:

Early post-stroke depression (PSD) is frequent, impairing the rehabilitation and functional recovery of hemiplegic patients. This double-blind, placebo-controlled trial was designed to study the efficacy and tolerance of fluoxetine in the treatment of early PSD.

In this study two randomized groups were given either 20 mg fluoxetine or placebo for six weeks. Patients were evaluated using motricity index (MI), Mini Mental Status (MMS), functional independence measure (FIM), and Montgomery Asberg depression rating scale (MADRS).

Results: Of 121 patients screened, 31 were included, and 28 completed the trial: 13 in the fluoxetine group (FG) and 15 in the placebo group (PG). FG and PG were initially similar (age: 67.2 vs. 68.9; sex ratio: 6/7 vs. 9/6; time between stroke and onset of depression: 47.5 days vs. 47.7 days; side of lesion: right in 10/13 vs. 12/15; MI : 30.6 vs. 43; MMS: 24.4 vs. 24.1; FIM: 60 vs. 72.3; MADRS: 27.9 vs. 27.2).

After six weeks there was a significantly greater improvement of MADRS score in the fluoxetine group (10.2 ± 5.9 vs. 18.7 ± 9), and percentage of patients whose MADRS decreased by more than 50% (76.7% on fluoxetine vs. 33.3% on placebo). There was no difference in motor, cognitive, or functional improvement and no side effects were declared.

Conclusions: Fluoxetine is efficacious for early PSD and well tolerated. Its impact on motor functions, cognitive activity, and autonomy is probably masked in the early phase by spontaneous neurologic recovery. A similar trial is under consideration for late PSD.

NR181 Monday, May 17, 3:00 p.m.-5:00 p.m.

Scalp to Prefrontal Cortex Distance Increases with Age and Might Influence the Antidepressant Effect of Left Prefrontal Repetitive Transcranial Magnetic Stimulation

F. Andrew Kozel, M.D., c/o Ziad Nahas, M.D., Medical University of SC, 67 President Street, Room 502N, Charleston SC 29403; Ziad H. Nahas, M.D., Cart deBrux, B.S., Monica Molloy, M.S.N., Jeffrey P. Lorberbaum, M.D., Samuel C. Risch, M.D., Mark S. George, M.D.

Summary:

Introduction: Repetitive transcranial magnetic stimulation (rTMS) involves passing electricity through a coil on the scalp to produce a powerful magnetic field just under the coil, which depolanizes superficial cortical neurons. Daily left prefrontal rTMS has a less robust antidepressant effect in elderly subjects (Figiel). We wondered if rTMS is not reaching the prefrontal cortex in some subjects, and if the distance from the scalp to cortex influenced their antidepressant response.

Methods: We used MRI to measure the distance between coil to cortex in 29 depressed adults enrolled in a randomized, double-blind, placebo-controlled, antidepressant trial of left prefrontal rTMS (Nahas). Medication-free subjects were randomized to daily high-frequency, low-frequency or placebo rTMS at motor threshold stimulation for two weeks. Antidepressant response was defined as a 50 percent decline from baseline in Hamilton Rating Scale for Depression (HRSD) score after two weeks of daily treatment. At baseline a TI-weighted 3D volumetric MRI scan was obtained with a 1.5 Tesla Picker scanner (142 1 mm sagittal slices). Subjects had markers placed at the site of rTMS stimulation. A trained reader (FAK) blind to treatment arm used MEDx 2.1 to measure the scalp-prefrontal cortex distance (S-C distance).

Results: S-C distance significantly increased with increasing age ($r2 = .422$. $p<0.0001$). There was no correlation between S-C distance and percent HRSD change or motor threshold.

Although there was no significant linear correlation between S-C distance and HRSD change, all rTMS antidepressant responders were less than 55 years of age and had S-C distances less than 17.00 mm. Motor threshold did not significantly increase with age.

Discussion: These data would imply that in older depressed subjects, rTMS at these parameters might not be adequately stimulating the prefrontal cortex. We are currently measuring the scalp-motor cortex distance in these subjects to determine if there is specific prefrontal atrophy. Higher intensity of rTMS (or more powerful coils) may be needed when using rTMS to treat depressed older adults.

NR182 Monday, May 17, 3:00 p.m.-5:00 p.m. Physiological Changes in Galvanic Skin Response and Electromyography in the Treatment Course of Biofeedback

Man-Kil Seo, M.D., Department of Psychiatry, Samsung Seoul Hospital, 50 Ilwon-Dong, Kangnam-Gu, Seoul 135-710, Korea; Wou Sang Han, M.D., Bum Hee Yu, M.D., Eyong Kim, M.D.

Summary:

Objective: The aims of this study were to investigate the physiological changes of variables such as galvanic skin response (GSR) and electromyography (EMG) and to find the minimum number of session shown to increase the probability of completing the biofeedback treatment.

Method: We recruited 37 of 130 patients who had trained biofeedback treatment from May 1, 1996 to March 31, 1998 in outpatient setting. Subjects had trained more than four sessions with autogenic training and biofeedback combined skill introduced by Basmajian. Their symptoms were insomnia, tension headache, panic disorder, and generalized anxiety disorder. The number of patients who finished the full 12th session were 14 and who finished the treatment during the autogenic heaviness exercise (four to five sessions) and finished during the warmth (six to nine sessions) were nine and 14, respectively. The mean (average value of GSR and EMG during each session) and the delta value (difference between the highest point in the resting state and the lowest in the training) measured. Repeated measures of ANOVA was used.

Results: 1) The changes of GSR did reflect the treatment state of patients better than EMG. 2) The difference of the mean value of GSR between the 5th and the 6th session was revealed significantly in full session patients ($P < .01$).

Conclusions: These results suggest the possibility that patients who has significant difference of the mean GSR after the autogenic heaviness sessions could make the internal cues in the biofeedback training and complete the long-term treatment.

NR183 Monday, May 17, 3:00 p.m.-5:00 p.m. Mortality in Anorexia Nervosa: A 60-Year Follow-Up

Sergio R. Korndorfer, M.D., Department of Psychiatry, Mayo Clinic, 200 First Street, SW, Rochester MN 55905; Lois E. Krahn, M.D., Alexander R. Lucas, M.D., Vera J. Suman, Ph.D., L. Joseph Melton III, M.D.

Summary:

Objective: To determine survival in a community sample of anorexia nervosa subjects. Reviews of previous clinical studies reported greatly variable mortality rates of up to 19%. These rates are difficult to interpret because of the varying severity of illness and length of follow-up and lack of standard comparison groups.

Method: We followed 181 cases of anorexia nervosa (166 females and 15 males) that had been identified from 1935 through 1984 in Rochester, Minnesota. They represented all cases of anorexia nervosa in the community and were followed for 11 to 60 years. Their survival was compared with that expected for Minnesota residents of like age.

Results: Twelve of 166 female subjects had died. This compared with the expected deaths of 12.6 in the matched group of Minnesota women of like age ($p=0.86$). Causes of death included inanition, alcoholism complications, and suicide. The others died of causes unrelated to anorexia nervosa. One male subject had died of alcoholism-related causes.

Conclusions: The survival in a community-based sample of women with anorexia nervosa was not found to be different from that expected for Minnesota women. Too few men were included for statistical comparison.

NR184 Monday, May 17, 3:00 p.m.-5:00 p.m. Body Fat Distribution Before and After Weight Gain in Anorexia Nervosa

Laurel Mayer, M.D., Department of Psychiatry, NY State Psychiatric Institute, 1051 Riverside Dr. Unit 98, New York NY 10032; B. Timothy Walsh, M.D., Jack Wang, M.D., Richard N. Pierson, M.D.

Summary:

Purpose: To explore the pattern of body fat distribution before and after weight gain in patients with anorexia nervosa (AN).

Methods: Body composition was measured in 19 subjects with AN before and after weight normalization (90%IBW) and in 19 controls matched for BMI to weight-restored patients by anthropometry (calipers, tape measure) and DEXA (percent body fat).

Results: Groups were well matched (BMI 19.83+0.9 in both groups) except for age (controls 29.9+4.8yrs vs. AN subjects 25.6+5.6yrs, $p=0.02$). Before refeeding, body composition for AN subjects was significantly lower than for controls: X_{BMI} for AN subjects=15.9+2. 1kg/m2 (controls 19.83+0.9kg/m2, $p<0.001$) and mean percent body fat was 10%+5 (controls 24%+4%, $p<0.05$). With weight regain, these measures of body composition increased significantly in the patients and were not significantly different from controls. Arm, waist, hip, and thigh circumferences increased uniformly by ~20% within the patient group. However, when compared with controls, patients had significantly larger waist (700mm+44 vs. 664mm+29) and hip (892mm+30 vs. 833mm+30) circumferences and smaller arm (233mm+11 vs. 253mm+21) and leg (449mm+20 vs. 479mm+265) circumferences ($p<0.0$ 1).

Discussion: While refeeding patients with AN may restore weight to a normal range, the pattern of weight distribution suggests that weight gain tends to be distributed centrally and away from the periphery. This may lead to the persistence of body image disturbances and may predispose patients to relapse.

NR185 Monday, May 17, 3:00 p.m.-5:00 p.m. Categorical Versus Dimensional Personality Pathology

Wayne A. Ayers, M.A., Mental Health, Bronx VAMC, 130 West Kingsbridge Road, Bronx NY 10468; Nick Haslam, Ph.D., David P. Bernstein, Ph.D., Warren Tryon, Ph.D., Leonard Handelsman, M.D.

Summary:

Objective: We assessed the validity of the DSM-IV categorical model of antisocial and borderline personality disorders (PD) in a substance-abusing population. High comorbidity rates suggest that this conceptualization of personality pathology is inadequate and that a dimensional model may be better. This study compares these alternative models empirically.

Methodology: 509 poly-substance-abusing subjects from a VA hospital and an outpatient methadone program were given the Personality Diagnostic Questionnaire Revised (PDQ-R) along with other interview and self-report measures. We conducted two taxometric analyses (MaxCov and MAMBAC; Meehl, 1995) on the Antisocial and Borderline PDQ-R scales to evaluate whether the data were best modeled according to discrete categories or dimensions.

Results: We found evidence for the discreteness of antisocial personality, supporting the categorical DSM model. Contrarily, we found evidence supporting a dimensional model for borderline PD, contradicting DSM-IV.

Conclusions: These results support the current categorical model of antisocial PD. Further item analyses should reveal antisocial items that are more important in determining discreteness. Simultaneously, these findings call into question the current diagnosis of borderline personality disorder in a substance-abusing population. Overall, these results point to the complexity of diagnosis and treatment of personality pathology, particularly in substance abusers.

NR186 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Comorbidity and Effects of Personality Disorders on Depressive Mood Disorders in a Turkish Population

Emine N. Iscan, M.D., Department of Psychiatry, Boston University, 40 Sheafe Street, Apt #4, Boston MA 02113; Sibel Orsel, M.D., Asena Akdemir, M.D., Hakan Turkcapar, M.D., Ayhan Sirin, M.D., Emine Kilic, M.D., Haluk Ozbay, M.D.

Summary:

Objective: This study examines the effects of Axis II pathology on presentation and treatment of depressive mood disorders.

Method: This is a prospective, single-blind, comparative study conducted at SSK Ankara Training Hospital Mental Health Clinic, in Ankara, Turkey, where tertiary health care is provided in an urban setting. Sixty-five patients aged 18-65 who were diagnosed by SCID (Structural Clinical Interview for DSM-III-R) with a depressive mood disorder had been also interviewed for presence of personality disorders according to DSM-III-R by using SCID-II. Patients were randomly assigned to receive either sertraline or moclobemide for a period of 13 weeks, followed by a 16-week continuation phase. The Hamilton Depression Rating Scale and Clinical Global Impressions were used to assess severity of illness.

Results: This study showed that patients with comorbid personality disorder presented at a younger age (31±6.9, p:0.004) and were less likely to have melancholic type of major depression (n:13, p:0.0005). There were no significant difference in acute treatment response between groups. Although the dropout rate for the patients with a personality disorder was significantly higher (n:10, p:0.04) during continuation phase of treatment.

Conclusions: Patients with depressive mood disorders with and without comorbid personality disorders responded to both sertraline and moclobemide. Patients with comorbid personality disorder diagnosis had higher dropout rates than depressed patients without Axis II diagnosis during continuation phase, suggesting that the treatment of depressed patients with personality disorders may be complicated by noncompliance.

NR187 Monday, May 17, 3:00 p.m.-5:00 p.m.
Prevalence of Sleep Disorders in Elderly People Living in a Rural Community

Carmen Fernandez, M.D., Medicine, Psychiatric Area, Julian Claveria 6-3, Oviedo 33006, Spain; Pilar A. Saiz, M.D., Maria P. Gonzalez, Ph.D., M. Teresa Bascaran, M.D., Eva Garcia, Ph.D., Julio B. Bobes, M.D.

Summary:

Objectives: To determine prevalence of sleep complaints and ICD-10 insomnia in rural population over age 65 without cognitive impairment.

Subjects: One hundred-seven people from Proaza (Span) were interviewed using the Oviedo Sleep Questionnaire.

Results: Mean age: 76.298 (6.822), males (36.4%). ICD-10 insomnia: 40.2% (excluding subjects with psychiatric disorder, insomnia rate: 32.5%); no age, gender, alcohol consumption, medical illness association; with psychiatric diagnosis (63.0% vs. 32.5%, p=.010). Sleep complaints (> 2 days/week): difficulties initiating (48.6%), maintaining (59.8%), nonrestorative (45.8%) sleep, early awakening (5.6%), excessive sleepiness (9.3%). Satisfaction: 26.4% (associated with insomnia, p=.000); Sleep aid usage: 21.5% (associated with psychiatric diagnosis, p=.000); of these, 39.1% don't have insomnia.

Conclusions: Insomnia is highly prevalent although it diminishes moderately when subjects with psychiatric disease are excluded. The most frequent complaint is sleep maintenance. There is an important discrepancy between people diagnosed with insomnia and people treated for it.

NR188 Monday, May 17, 3:00 p.m.-5:00 p.m.
A Prospective Assessment of Mood Symptoms in Chronic Insomniacs

Tung-Ping Tom Su, M.D., Department of Psychiatry, Veterans General Hospital, 201 Shih-pai Road, Sec 2, Taipei 11217, Taiwan

Summary:

Objectives: The aims of this study are to use structured interview to identify mood disorders in patients with chronic insomnia and to prospectively compare the changes of mood symptoms after treatment between primary insomnia and depression with secondary insomnia. Forty-seven patients who met the DSM-IV criteria for chronic dyssomnia had a history taken and were given the structured Clinical Interview for DSM-IV Axis I (SCID) and for sleep disorders under DSM-III-R (SISD). Sleep questionnaires and the rating scales for anxiety and depression were given at the beginning, the middle and the end of the study. Three groups of insomniacs were found; group 1: 12 patients had depression with secondary insomnia; group 2: seven patients had chronic insomnia with occasional depression; group 3: another 21 patients were found to have primary insomnia. After one-month treatment, significant time effect of DFA, DMS, and EMA was observed (p<0.002) without group differences. The same results were also demonstrated with significant reduction of scores on Beck Depression Inventory and Hamilton Depression Rating Scale for all three groups (p<0.03). However, insomnia patients with history of depression still remained mildly depressed after

treatment in contrast to symptom-free patients with primary insomnia. Our study confirms the strong relationship between insomnia and mood disorders. For chronic insomnia with mood symptoms persistently disturbed sleep may be a risk factor for the recurrence of depression. In contrast, primary insomnia patients may not develop depression for the rest of life, suggesting a subset of brain receptors responsible for primary insomnia different from those for depression.

NR189 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Role of Experiential Groups in Residency Training

Laura R. Gaffney, M.D., Department of Psychiatry, University of Maryland, 701 West Pratt Street, Baltimore MD 21201; Lisa B. Dixon, M.D.

Summary:

Purpose: To examine factors influencing psychiatric residents' desires to participate in a weekend-long voluntary group experience and residents' perceptions of its expected value.

Methods: All residents of an East Coast residency training program who were offered the group experience were surveyed. Questions included demographics, previous group and therapy experience, reasons for participating or not, and beliefs about the efficacy of different types of therapy.

Results: 68% of the residents chose to go on the weekend. Participants were significantly younger than nonparticipants ($p < .01$) but did not differ on gender, past group or individual therapy experience, or beliefs about effectiveness of group, individual, or pharmacotherapy. The most frequent reasons for participation were desire to study group process (88%) and to interact with colleagues (84%). The most frequently endorsed reasons for not participating were family and personal obligations. Belief in efficacy of group therapy was correlated wilth a positive experience in the previous year as a reason to paricipate ($p < .051$).

Discussion: This cohort of residents appeared to perceive an extended group process experience as desirable for its educational value and as a means to interact with colleagues. Nonparticipation was more practical as older residents with perhaps more family obligations did not attend. The role of individual and group therapy process experience in psychiatric training needs to be further explored.

NR190 Monday, May 17, 3:00 p.m.-5:00 p.m.
The Safety of a Combination of Fluoxetine and L-Tryptophan in Terms of Serotonin Syndrome

Ripu Jindal, M.D., Department of Psychiatry, SUNY Health Sciences Center, 750 East Adams Street, Syracuse NY 13210; Robert D. Levitan, M.D., Colin Shapiro, M.D., Shen Jian-Hua, M.D.

Summary:

Introduction: The serotonin syndrome is a toxic condition requiring prompt recognition and treatment. This syndrome has been described as a result of interaction between a number of drugs, both psychotropic and nonpsychotropic. Steiner and Fontaine reported on five DSM-III OCD patients who all developed a toxic reaction following combined administration of fluoxetine and L-tryptophan. They had received 50-100 mg of fluoxetine and 2-4 gm of L-tryptophan simultaneously.

Methods: As part of our double-blind study, 14 patients who met the DSM-III criteria for major depression received a combination of fluoxetine and L-tryptophan over eight weeks. They received 20mg. of fluoxetine throughout the eight weeks. The dosage of L-tryptophan was 2gm/day for the first four weeks, which was increased to 4 gm/day for the next four weeks. The patients were followed closely using a side-effect checklist.

Results: None of these 14 patients developed any of the most commonly reported features of serotonin syndrome such as changes in mental status, restlessness, myoclonus, hyperreflexia, diaphoresis, shivering, and tremor.

Conclusions: The risk of developing the serotonin syndrome with the combination may be related to the dosage of fluoxetine and may be minimized by decreasing the dosage of fluoxetine.

NR191 Monday, May 17, 3:00 p.m.-5:00 p.m.
Baseline Absolute Blood Flow Measured with Oxygen-15 PET Predicts Differential Antidepressants Response to 1HZ Versus 20 HZ rTMS

Andrew M. Speer, M.D., BPB, NIMH/Bldg 10, Rm 3N212, 10 Center Drive, Bethesda MD 20892; Timothy A. Kimbrell, M.D., Eric M. Wassemann, M.D., Mark W. Willis, M.Eng., Robert M. Post, M.D.

Summary:

Introduction: High and low frequency rTMS may have differential effects in different individuals with clinical depression. We postulated that patients with low regional cerebral blood flow (rCBF) at baseline (hypoperfusion) by PET would respond preferentially to 20Hz and increase rCBF, while those with high rCBF at baseline (hyperperfusion) would respond best to 1Hz and decrease rCBF.

Methods: Ten medication-free depressed patients were imaged at baseline and after rTMS using oxygen-15 PET. Baseline deviation from age-matched ideal rCBF was used to determine baseline status: 6 hypoperfused and 4 hyperperfused. Patients received two weeks each of 1Hz and 20Hz rTMS over the left prefrontal cortex in a randomized, placebo controlled, crossover design. Clinical response was assessed by change in Hamilton Depression Rating Score for each phase.

Results: Patients who improved on one frequency of rTMS, deteriorated on the other ($r = -0.83$; $p=0.002$). Direction of rCBF deviation from ideal at baseline was associated with rTMS response: low rCBF predicted better response to 20Hz rTMS, while high rCBF predicted better response to 1Hz rTMS (in 8 of 10 patients: ANOVA frequency x flow interaction $F=5.5$; $p<0.5$). Moreover, two weeks of 20Hz rTMS markedly increased rCBF from baseline, while 1 Hz treatment less robustly decreased rCBF.

Discussion: These data suggest that two weeks of high and low frequency rTMS are associated with opposite effects on mood and rCBF in depressed patients, and baseline rCBF might facilitate choice of the optimal rTMS frequency for a given individual.

NR192 Monday, May 17, 3:00 p.m.-5:00 p.m.
Cerebellar Glucose Metabolic Rate in Autism Spectrum Disorder

Steven G. Spector, M.D., Department of Psychiatry, Mount Sinai Hospital, One Gustave Levy Place, New York NY 10029; M. Mehmet Haznedar, M.D., Tse Chung Wei, Ph.D., Monte S. Buchsbaum, M.D., Chris Smith, M.A., Bonnie A. Aronowitz, Ph.D., Eric Hollander, M.D.

Summary:

Postmortem studies of patients with autism indicate cerebellar cytoarchitecture abnormalities. A marked reduction of Purkinje

neurons has been described in the posterolateral regions of the neocerebellum and the adjacent archicerebellar cortex. Our previous study of the rate of glucose metabolism in the cerebellum of autistic subjects have been inconclusive, but may have been confounded by methodological limitations. In the current study our group took advantage of the improved resolving power of MRI/PET coregistration to examine the metabolic changes in the cerebellum in 12 high-functioning subjects with autism and Asperger's disorder (2F. 10M; mean age 28.5 ± 12.8) and 7 control subjects (7M, mean age 31.5 ± 11.1). Subjects, who had been previously scanned on MRI, performed a serial verbal learning test during a 35-minute [^{18}F]-fluorodeoxyglucose uptake period and then were scanned with PET. One researcher (SS), unaware of the subjects' diagnostic information, outlined the cerebellum on axial MRI slices corresponding to Matsui-Hirano Atlas levels (MHL) 12, 13, and 14 (14%. 8%, -6% of head height relative to the CM line, respectively). After PET/MRI coregistration, each individual's cerebellum was standardized to the averaged contour of the normal subject group. Between-group differences in cerebellar metabolism were assessed by statistical probability mapping (SPM). At MHL 12 the autism spectrum subjects showed a lower glucose metabolic rate (max t value: 4.63. mean t value: 3.02, mean volume: 149.18: x,y=163,192). At MHL 13 the autism spectrum subjects showed a lower glucose metabolic rate (max t value: 3.19, mean t value: 2.5, mean volume: 68.37; x,y=165.190). There were no statistically significant differences at MHL 14 between the controls and the autism subjects. The clinical implications of these findings will be discussed and correlations with the basal ganglia and frontal cortex will be explored.

This study is funded by Siever Foundation for Autism Research.

NR193 Monday, May 17, 3:00 p.m.-5:00 p.m.
Prefrontal Volumes in First-Episode Schizophrenia

Shin Tanaka, M.D., Department of Psychiatry, Brockton VAMC, 940 Belmont Street, PSY 116A, Brockton MA 02401; Yoshio Hirayasu, M.D., Martha E. Shenton, Ph.D., Massimo A. De Santis, B.S., Dean F. Salisbury, Ph.D., Robert W. McCarley, M.D.

Summary:

Objective: Magnetic resonance (MR) measures have shown anatomical abnormalities in first-episode schizophrenia, including a recent report of reduced left posterior superior temporal gyrus cortical gray matter (Hirayasu et al., Am J Psychiatry 1998; 155:1384-1391). Prefrontal abnormalities have also been reported in first-episode schizophrenia, but gray and white matter have not been differentiated and findings have been inconsistent in chronic patients. Furthermore,affective psychosis subjects have not been used as a contrast group.

Method: MR images were acquired from first-episode patients with schizophrenia (SZ, n=11), affective psychosis (AFF, n=9), and age-matched normal controls (CON, n=10). Statistics were performed based on relative volumes (ROI volume/intracranial volume)x100. These subjects are part of a larger sample on which prefrontal volumes are currently being computed for the entire sample (which is approximately twice the size of this abstract sample).

Results: Pairwise comparisons indicated a trend level decrease, bordering on statistical significance, for both left and right prefrontal gray matter volumes in comparisons between SZ and CON. Values for left prefrontal gray were p=0.055, t=2.05, df=19, effect size=0.96, based on relative volumes; mean (SD) absolute volumes were: SZ, 76.6±12.0ml, CON, 87.5±12.0ml. Values for right prefrontal gray were p=0.064, t= 1.97, df=19, effect size=0.91; mean (SD) absolute volumes were: SZ, 76.2±13.2ml, CON, 87.8±13.2ml. However, at the current subject N, ANOVA showed no significant difference among the three groups of first-episode patients with SZ, AFF, and CON in gray or white matter prefrontal volumes for left or right.

Conclusions: These initial data suggest that prefrontal cortical gray matter abnormalities may be present at first hospitalization in schizophrenic patients. The large effect size suggests that the planned increase in sample size from analysis of already acquired images may yield statistical significance for gray matter differences between schizophrenic and control subjects.

NR194 Monday, May 17, 3:00 p.m.-5:00 p.m.
Suicidal Ideation Affects Choice of Resuscitation Status

Ilyse Lifton, B.A., Penn State University, 54 University Manor East, Hershey PA 17033; Paul A. Kettl, M.D.

Summary:

Objective: To determine if advanced directives were affected by the presence of suicidal ideation in geriatric patients with affective disorders.

Method: A retrospective chart review was conducted on a university geriatric psychiatry unit of 192 patients aged 60 or older admitted with affective disorders (either major depression or bipolar disorder). One patient did not have an advanced directive listed and was excluded. Charts were reviewed for the presence of suicidal ideation, personal and family psychiatric history, demographic data, and MMSE score. Pearson chi-square statistics via SPSS were used to analyze the data.

Results: Patients with suicidal ideation were more likely to choose "no CPR" than were affectively ill patients with no suicidal ideation (p=0.042). Bipolar patients were less likely to choose "no CPR" than were patients with major depression (p=0.035). Patients aged 70 and older were more likely to choose "no CPR" (p=0.002). There were no differences in resuscitation status chosen by patients according to marital status, gender, religion, length of hospital stay, family or personal psychiatric history, or MMSE score.

Conclusion: The Patient Self-Determination Act of 1991 requires all patients be informed of their right to express an advanced directive on hospital admission. However, suicidal ideation affects advanced directive choice. This presents an ethical dilemma for psychiatrists.

NR195 Monday, May 17, 3:00 p.m.-5:00 p.m.
Quetiapine in Psychotic Depression

Hosein Tahami, M.D., Department of Psychiatry, University of Miami Med Ctr, 1400 NW 10th Ave, Ste 304A D79, Miami, FL 33136; Paul J. Goodnick, M.D., Wendy E. Doran, M.D., Mark Hernandez, M.D., Blanche Freund, Ph.D.

Summary:

With the release of risperidone in 1994, a new generation of antipsychotics was released with minimal to no effect on the extrapyramidal system and with the clinical impression that this group of "atypical antipsychotics" would be less likely to cause all types of EPS, including tardive dyskinesia. This group has also been found to differ from the older neuroleptics in terms of unique effects to block 5HT receptors. This effect has been

thought to be of potential benefit in mood disorders. For example, olanzapine has been found to produce significant improvement of symptoms of depression in schizophrenic patients (Tollefson, et al, 1998). Therefore, these same agents might be effective (without antidepressants) in treating psychotic depression. The newest addition is quetiapine with high $5HT_2/D_2$ ratio with minimal effects on acetylcholine. We have begun to enter patients meeting DSM-IV criteria for psychotic depression in an open-label trial of quetiapine with increasing doses over a six-week period up to 400-600 mg given split-dose. Patients are seen at baseline, and after one, two, four and six weeks with evaluation on the HDRS, BDI, BPRS, and CGI. Patient 1, a 53 WM has shown improvement from baseline to final, respectively, of HDRS 23 to 8, BDI, 29 to 12, & BPRS 35 to 22. Similarly, patient 2, a 51 WM, has shown improvement from baseline to final of HDRS 29 to 10, BPRS 40 to 23. We will be entering up to 10 patients by Spring. Although open-label, these cases are consistent with the potential of quetiapine to be effective in mood disorders, particularly psychotic depression.

NR196 Monday, May 17, 3:00 p.m.-5:00 p.m. Religious and Spiritual Expectations of Psychiatric Inpatients

Hetal K. Brahmbhatt, M.D., Department of Psychiatry, East Tennessee State Univ, 1007 Oracle Court, Johnson City TN 37604; Brent R. Coyle, M.D., Barney E. Miller, Ph.D.

Summary:

Introduction: Sheehan et al. found that 23% of psychiatric inpatients consider religious/spiritual conflict to be a primary reason for their hospitalization. Anderson et al. found that approximately 59% of psychiatric inpatients chose to have a spiritual component to their care. APA advises psychiatrists not to impose their own religious beliefs on patients for therapeutic practice. Larson found that the general population is significantly more religious than psychiatric providers. This religiosity gap suggests that patients have high interest in incorporating a spiritual component into their care.

Method: A survey of 100 psychiatric inpatients and 50 controls was done to study expectations for spiritual component to health care.

Results: It was found that 50% of patients wished to have their religious beliefs explored during hospital stay. Fifty percent felt their current emotional problems were due to religious conflict, 78% felt "prayers changes things"; 46% wanted their provider to pray with them; 71% wanted to be prayed for; 57% felt spirituality prevented them from self-harm; 70% felt spirituality helped in coping with illness.

Conclusion: Large numbers of psychiatric patients expect a spiritual component to their care. Other findings support highly beneficial psychological outcome of spirituality. Our wisdom as psychiatrists comes in acknowledging this aspect of health care.

NR197 Monday, May 17, 3:00 p.m.-5:00 p.m. Patients with Schizophrenia Literary Group in Internet

Lidia Lafon, Ph.D., Department of Psychiatry, Hospital Borda, Ituzaingo 1250 3A Lanus Este, Buenos Aires 1826 Argentina; Luis Lozano, M.D., Liliana Florio Ph.D., Guillermo J. Tortora, M.D.

Summary:

Objective: The object of this work is to transmit a three-year experience (1996-1998) in chronic psychotic patients' treatment based on the development of artistic capacity and use of computers in an interchange space called Literary Group.

Methods: Jose T. Borda Neuropsychiatric Hospital is a mental health institution with 1,100 patients being the service N 9 one of its admission services from which (n=56) are patients with DSM-IV diagnostic criteria 295.60. The Literary Group began as a patient's proposal in a Community Assembly. It is a therapeutic space where no psychoanalytic remarks are made. Patients express themselves freely, and the artistic expressions are the vortex of interchange.

Results: The electronic magazine that was created by the patients in 1996. These patients got familiar with P.C. usage and were able to cope, with the logical inhibition toward a machine, first dealing with programs consisting basically in games. An intensive activity began, and with it, the idea of creating an electronic magazine in order to achieve a massive spread of their literary production. This material was distributed through the net using the BBS' existing in that moment to the present via Internet: http//www.drwebsa.com.ar/expression, e-mail: scarlet@drwebsa.com.ar.

Conclusions: This project allows some important topics: Let thousands of users to know the meaning of mental disease in the sense of NOT considering it a total disability; understand the multiple capacities that patients can display as a result of artistic expressions such as drawing, painting, literature, philosophy, etc; share experiences of the mental disabled patients and the possibility of resocialization and rehabilitation as a result of this creative space.

NR198 Monday, May 17, 3:00 p.m.-5:00 p.m. Two-Day Treatment: Communities Building Bridges

Anna Pieczarowska, Outpatient, Bangor Mental Health Institute, PO Box 926, Bangor ME 04402-0926; Jeff Aston, John Burns, Charles D. Hanson, M.D., Milica A. Markovic, M.D.

Summary:

Part of a regional four-year effort to reduce the need for chronic mental hospitalization by providing more comprehensive and effective services for patients transitioning to or residing in the community, two existing state programs were evaluated. One program serves older psychiatric patients currently ranging in age from 62 to 90; ten to 17 patients with functional psychiatric disorders and no more than minimal cognitive impairment attend a maximum of three days per week and receive part-time services from a psychiatrist, a psychologist, a social worker, an R.N., two mental health workers, and a rehabilitation aide. The other program services patients transitioning from chronic hospitalization or at high risk of psychotic deterioration requiring hospitalization; an average of 35 patients currently ranging in age from 19 to 64 attend up to five days per week and receive services from full-time staff including a psychologist, a nurse, a mental health worker, a recreation therapist, an occupational therapist, and from part-time staff including a psychiatrist and two social workers. Both programs were assessed for integration into an expanded service network better meeting patient needs. Staff and patients were interviewed using the Moos Community Oriented Programs Environment Scale. Ten perceived characteristics were measured for each program, and a plan for better utilizing the resources of each program was developed based on the measurements.

NR199 Monday, May 17, 3:00 p.m.-5:00 p.m.

Relationships Between Interleukins, Neurotransmitters and Drug-Free Males with Schizophrenia

Yong-Ku Kim, M.D., Department of Psychiatry, Ansan Hospital, College of Medicine/Korea Univ, 516, Go-Jan Dong 425-020, Ansan City, Korea; Leen Kim, M.D., Min-Soo Lee, M.D.

Summary:

It has been postulated that altered interleukin (IL) regulation may be involved in the pathogenesis of schizophrenia. We therefore investigated the relationship between interleukins, neurotransmitters, and psychopathology in schizophrenia. IL-1ß, IL-2, IL-6, homovanillic acid (HVA), and 5-hydroxyindoleacetic acid (5-HIAA) were measured in the plasma of 25 neuroleptic-free, male, schizophrenic and 25 age- and sex-matched healthy controls. The patient's psychopathology was assessed by the Scale for the Assessment of Positive and Negative Symptoms (SAPS, SANS). The above variables were measured in baseline condition and after eight weeks of treatment with haloperidol. The plasma levels of IL-2 and HVA were significantly higher in patients than in controls. In schizophrenics, significant positive correlations between IL-2 and HVA, IL-2 and SAPS, and between HVA and SAPS were found. In addition, there were significant positive correlations between IL-6 and SANS on duration of illness. In schizophrenic patients, the plasma levels of IL-2 and HVA levels were significantly lower after treatment than before treatment. There were significant positive correlations between the change in IL-2 and the change in HVA, and between the change in HVA and the change in SAPS. These data suggest that the dysregulation of ILs may be associated with specific clinical features in the pathophysiology of schizophrenia. Furthermore, it appears to be state-dependent.

NR200 Monday, May 17, 3:00 p.m.-5:00 p.m.

Survey of Computer and Internet Usage by Residents

Ambrose Cheng, M.D., Department of Psychiatry, Univ of Toronto/Toronto Hosp, 200 Elizabeth St/8 Eaton North, Toronto. ON M5G 2C4, Canada; Rima Styra, M.D.

Summary:

Objective: To explore the University of Toronto psychiatry residents' knowledge and application of computers and the Internet.

Method: A multiple-choice survey was distributed to all psychiatry residents at the University of Toronto in the fall of 1998.

Results: Fifty-three surveys were received; respondents were equally divided by gender. A total of 91% of residents used a computer, 84% owned one, and 89% felt it was important to own one. In regards to computer training, 82% were self-taught, 24% have taken community-based or high school courses, 18% have taken college- or university-level courses, and none have been trained by the computer industry. In regards to the Internet, 82% of residents used e-mail, 76% used the World Wide Web, 15% used newsgroups, 9% used chat, and 4% used Web-based forum. Problems cited in using the Internet included poor quality or irrelevant information (53%), slow connection (45%), and information being hard to read or scroll (11%). When looking up information, 60% of residents first turned to journals, while 9% first turned to the Internet.

Conclusions: Psychiatry residents use computers and the Internet, but not as a first choice in obtaining information. For residents to embrace the Internet as a tool of medical education, improvements need to be made to both the quality of available information and to the technology of providing information.

NR201 Monday, May 17, 3:00 p.m.-5:00 p.m.

A Multipurpose, IntraNet-Compatible Data Management System for Clinical Research

Julie I. Lu, B.A., NIH, NIMH/LCS, 10 Center Dr/Bldg 10, Rm 3D41, Bethesda MD 20892; Gabriela Cora-Locatelli, M.D., Juliet Martin, B.S., Yung-Mei Leong, M.A., Dennis L. Murphy, M.D., Benjamin D. Greenberg, M.D.

Summary:

When large amounts of clinical research data are obtained on an ongoing basis and require integration for analysis, efficient data management is essential. We describe a system, based on a combination of available commercial software packages, that has proven useful in projects ranging from genetic and neuroimaging studies to therapeutic trials. This configuration offers a number of advantages. Clinical data including patient demographics, psychiatric/family histories, and longitudinal symptom ratings are quickly accessible for analysis. The system is network compatible; IntraNet implementation allows access from a variety of computer platforms while maintaining confidentiality. The system can be mastered with a minimum of training; functions such as designing layouts and exporting data are user-friendly. The system also facilitates ongoing assurance of data accuracy. While initially tedious, data entry increasingly uses customized scannable forms. Once these benefits are achieved, the main challenge becomes adapting to new clinical research needs as they arise. This is accomplished via database modification, e.g., adding additional data fields determined necessary in a continuing interaction between clinical researchers, individuals maintaining the database and analyzing the data, and technical support personnel. Advances in component software packages will allow further enhancements in the capabilities and user-friendliness of this system.

NR202 Monday, May 17, 3:00 p.m.-5:00 p.m.

A Forensic Psychological Approach on Family Violence

Mariana C. Bueres, Ph.D., Justicia NAC, CPO Med Forense, Talcahuano 550 Subsuelo, Buenos Aires, Argentina; Claudia E. Fortich, Ph.D., Claudia B. Norry, Ph.D., Guillermo J. Tortora, M.D.

Summary:

Materials and Methods: We have made a systematized analysis of 1,500 persons involved in family violence situations through 1997/98. In order to do that, we have taken the respective psychodiagnoses and psychiatric reports, the individual ones as well as the family interaction. These include the reading of records, psychiatric official records and graphic projective techniques of agreement and interdisciplinary work with family courts (judges, secretaries, social assistants).

Results: Although the violence potential varies from one subject to the other, its appearance will depend to a certain degree on the type of bond and interaction established in his family network. If we analyze on the one hand the variables: age, sex, educational-social level, labor situation, the incidence percentages are aleatory factors in the family violence problem. On the other hand, the existence of a severe psychopathology as a violence ground in the family environment has only reached up to 10% of the cases involved. In 90% of the cases where some type of family violence was diagnosed, the same backgrounds in their family were admitted. We do not include in this category those cases in which the arraignment involved another motive, for example, isolated violence episodes, divorces made not by agreement, etc.

Conclusion: The impression produced by the family violence acts during the person's own childhood on the psyche; it is the most relevant factor as multiplier effects on the new family violence trend.

NR203 Monday, May 17, 3:00 p.m.-5:00 p.m.
Aggressive Behavior in Psychiatric Inpatients in Taiwan

Chau-Shoun Lee, M.D., Psychosom Med, Lotung Pohai Hospital, 83 Nan-Chang Street, Lotung Ilan 265, Taiwan ROC; Jung-Chen Chang, M.N.

Summary:

Objective: We investigated the rates and patterns of aggression by psychiatric inpatients and determined factors associated with a greater risk of aggression.

Methods: Over a seven-month period, 111 newly admitted patients were prospectively observed by psychiatric staff in a university-based locked ward. Levels of aggression were ascertained by using the Overt Aggressive Scale (OAS).

Results: During hospitalization, every patient had 8.9 ± 17.3 episodes of aggression. Sixty-eight (61.3%) patients engaged in some type of aggression, and 46 (41.4%) displayed aggression against other people. Aggressive patients were more likely to have a longer duration of hospitalization. The younger, earlier onset of major psychiatric disorders and lower serum level of cholesterol (using a t-test or X^2 , $p < 0.05$) were associated with a greater risk of any form of aggression or aggression against other people. Logistic regression analyses showed that age of onset was still significantly associated with aggression when the period of hospitalization was controlled for.

Conclusions: A high proportion of inpatients engaged in aggressive behavior, which is an important factor for prolonged hospitalization. In our study, the early-onset psychiatric disorder is independently associated with inpatient aggression. Proper intervention for high-risk patients is warranted to prevent aggressive behavior and shorten duration of hospitalization.

NR204 Monday, May 17, 3:00 p.m.-5:00 p.m.
Patient Violence Against Hospital Staff: The National Center for Mental Health Perspective

Julio A.C.Navallo, M.D., National Center for Mtl Health, 11-Croad 5, PAG ASA, Quezon City 1105, Philippines; Carmelita C. Corpuz, M.D.

Summary:

The National Center for Mental Health, with an average inpatient population of 3,000 and a hospital staff numbering on the average about 2,500, is the biggest institution for mental health in Asia. As such, it is a ripe venue to study the risk of hospital personnel for patient assault. The objectives of this study are: (1) to determine whether proneness to patient assault can be defined in terms of fixed attributes of hospital staff (e.g. age, sex, area of assignment); (2) to determine the rate of patient assault against hospital staff; (3) to assess the current risk of assault; (4) to determine the demographics of those who were actually assaulted; and (5) to determine staff and patient behavior in violent incidents. A questionnaire will be distributed among hospital staff; the population under study will be picked by stratified sampling. Data gathered will be encoded and statistical analysis will be made through the use of a software program (EpiInfo). Among, the statistical tests that will be used are rates of assault, correlation between physical variables, and the presence or absence of assault, and comparison of variables between those who were assaulted and those who were not. As employment into a psychiatric institution immediately increases the risk for personnel to patient assault, this study will also hope to look at the possible preventive measures/interventions that personnel will have to learn/acquire so as to decrease future risks.

NR205 Tuesday, May 18, 9:00 a.m.-10:30 a.m.
Cost-Effectiveness of Risperidone Versus Olanzapine in Schizophrenia: A Computer Database Evaluation

Matthew J. Byerly, M.D., Department of Psychiatry, University of TX Southwestern, 5909 Harry Hines Blvd, 9 South, Dallas TX 75235; Mary T. Weber, Ph.D., Deean Brooks, B.S.

Educational Objectives:

Describe the differences between risperidone and olanzapine in terms of the costs of medication, hospitalization, and outpatient care. Discuss the outcome measure of cost-effectiveness as an important factor in treatment considerations.

Summary:

The goal of this study was to determine the cost-effectiveness of risperidone (RISP) vs. olanzapine (OLZ) in patients with schizophrenia and schizoaffective disorder determined by a computer database and chart review. Data were available for 70 patients nine months before and after beginning RISP (N=23) or OLZ (N=47). Costs of antipsychotic medication, hospitalization, and outpatient psychiatric treatment were available through programmed searches of the computerized database system (DHCP) of the Little Rock VAMC. Independent computer database evaluation and chart review verified the accuracy of computer-generated information.

Increase in antipsychotic medication cost was significantly higher in the OLZ-treated than the RISP-treated group (median change for OLZ group = $1,892 vs. RISP = $733; Mann-Whitney U Test, p<.0001). The mean medication cost for nine months of OLZ and RISP treatment were $2,406 ± 982 and $813 ± 440, respectively. A statistically significant decrease in cost of hospitalization was associated with both RISP (Wilcoxon Signed Rank test, p<.01) and OLZ (p<.01) treatment. There were no significant between-group differences in changes in total, hospital, or outpatient costs.

RISP and OLZ were equally effective in reducing costs of care in schizophrenia and schizoaffective disorder. However, medication costs of RISP were approximately one-third that of OLZ.

References:

1. Zito, J. (1998). Pharmacoeconomics of the new antipsychotics for the treatment of schizophrenia. Psychiatric Clinics of North America, 21, 181- 202.
2. Sacristan, Soto . Galende, Hylan (1998). Randomized database studies: a new method to assess drugs' effectiveness? Journal of Clinical Epidemiology, 51, 713-715.

NR206 Tuesday, May 18, 9:00 a.m.-10:30 a.m.
Pulvinar and Mediodorsal Thalamic Volume in Schizophrenia and Schizotypal Personality Disorder

Monte S. Buchsbaum, M.D., Department of Psychiatry, Mt. Sinai Medical Center, One Gustave Levy Pl/Box 1230, New York NY 10029; William M. Byne, M.D., Eileen Kemether, M.D., Akbar Shinwari, M.D., Erin A. Hazlett, M.B., Jacqueline Spiegel-Cohen, M.S., Larry J. Siever, M.D.

Educational Objectives:

At the end of this presentation, the participant will appreciate that some thalarmic, subdivisions may be reliably measured in MRI scans; that thalamic abnormalities may occur in schizotypal personality disorder as well as in schizophrenia; and that pathology in thalamic nuclei may be related to pathology in their cortical fields.

Summary:

Objective: Because frontal and temporal lobe volumes have been reported to be diminished in schizophrenia, we assessed the associated thalamic relay nuclei of the frontal (mediodorsal nucleus) and temporal (pulvinar) lobes in normal (n=12), schizophrenic (n=12), and schizotypal personality disorder (SPD; n=12) subjects.

Method: Tracers delineated the total thalamus, mediodorsal nucleus, and pulvinar on contiguous 1.2-mm MRI scans.

Results: Pixel overlap for delineation of all structures by independent tracers was 80% and intraclass correlations were >0.80. Total thalamic volume did not differ between groups. Pulvinar volume was smaller in schizophrenic (L22±0.24 cc) and SPD (1.20±0.23 cc) patients than controls (1.37±0.25 cc; F2.33=3.82,p=0.0321). Differences for the mediodorsal nucleus were not significant. After brain-volume correction, the pulvinar and mediodorsal nucleus were reduced in both patient groups: SPD (0.144%) and schizophrenia (0.154%) vs. controls (0.160%) (F2.33=3.35, p=0.047).

Conclusions: Identification of the mediodorsal nucleus and pulvinar in thin-section MRI is feasible and reproducible. Volume loss in thalamic nuclei may be related to volume loss in their cortical fields and characterizes SPD as well as schizophrenia.

Supported by NIMH grants MH40071 (MSB), MH55989 (WB), MH 56460 (EAH) and a NARSAD Young Investigator Award (WB).

References:

1. Andreasen NC, Arndt S, Swayze V, Cizadlo T, et al.: Thalarmic abnormalities in schizophrenia visualized through magnetic resonance image averaging. Science 266.294-298, 1994
2. Hazlett EA, Buchsbaum MS, Byne W, et al: Three-dimensional analysis of the size, shape and function of the thalamus in schizophrenia spectrum with MRI and PET. Am J Psychiatry (submitted)

NR207 Tuesday, May 18, 9:00 a.m.-10:30 a.m.
Progressive MRI Volume Change in Schizophrenia

Yoshio Hirayasu, M.D., Psychiatry 116A, Brockton VA, 940 Belmont Street, Brockton MA 02401; Martha E. Shenton, Ph.D., Dean F. Salisbury, Ph.D., Melissa Frumin, M.D., Iris A. Fischer, B.A., Robert W. McCarley, M.D.

Educational Objectives:

First-episode schizophrenics showed a smaller left posterior superior temporal gyrus (STG) and planum temporale than either affectives or controls. Repeat MR of these subjects showed volume reduction in the left posterior STG of schizophrenia. Progressive volume reduction of the left posterior STG gray matter may occur in the early stage of schizophrenia.

Summary:

Objective: MRI studies showed reduced left posterior superior temporal gyrus (STG) cortical gray matter in chronic, and, more recently, in first-episode schizophrenia (Hirayasu, et al., Am J Psychiatry 1998). In this study, we measured STG volumes in first-episode schizophrenia, first-episode psychotic affective disorder, and controls. Additionally, we obtained rescan data on gray matter volumes of STG. We also measured the gray matter volume underlying the planum temporale (PT), implicated in language processing.

Method: MRI was acquired from 20 schizophrenia (SZ) and 27 affective psychosis (AFF) patients, and 22 age-matched controls (CON). A second (rescan) MRI was obtained from 9 SZ, 8 AFF, and 7 CON. Mean duration between two scans was 1.5 years.

Results: ANCOVA revealed that left posterior STG differed among groups ($p<0.01$), with the SZ significantly smaller than CON and AFF (Tukey HSD, $p<0.05$). A significant difference of asymmetry coefficient among three groups ($p=0.02$), indicated a smaller left relative to right STG in SZ, than CON and AFF ($p<0.05$). Furthermore, comparison of the repeat with the first MR scan showed volume reduction in the left posterior STG of only SZ (paired t-test, $p=0.0002$; 8/9 subjects showed a decrease). ANCOVA showed that left PT differed among the three groups ($p<0.01$), with the SZ significantly smaller than CON and AFF ($p<0.05$). A significant group difference in the asymmetry coefficient ($p<0.001$) suggests that PT in SZ shows a reversal of the left>right asymmetry that is normally found in CON.

Conclusions: Preliminary results from repeated MR scans suggest that gray matter volume of the left posterior STG is reduced over time in schizophrenia, but not in affective psychosis or in controls. Volume reduction of the gray matter underlying the left PT appears to be specific to schizophrenia, as compared with affective psychosis.

References:

1. Shenton ME, Kikinis R, Jolesz FA, et al: Abnormality of the left temporal lobe and thought disorder in schizophrenia. A quantitative magnetic resonance imaging study. N Engl J Med 1992; 327: 604-612
2. Hirayasu Y, Shenton ME, Salisbury DF, et al: Lower left temporal lobe MR1 volumes in patients with first-episode schizophrenia compared with psychotic patients with first-episode affective disorder and normal subjects. Am. J. Psychiatry 1998; 155: 1384-1391

NR208 Tuesday, May 18, 9:00 a.m.-10:30 a.m.
Synaptic Protein mRNAs Expression in Schizophrenia

Boris P. Sokolov, Ph.D., Neurobiology, NIDA NIH, 5500 Nathan Shock Drive, Baltimore MD 21224; Andrew Tcherepanov, M.S., Vahram Haroutunian, Ph.D., Kenneth L. Davis, M.D.

Educational Objectives:

To recognize that age, specific abnormalities in the abundance of mRNAs encoding both synaptic vesicle and synaptic plasma membrane proteins may be present in the temporal cortex of schizophrenics. These results provide additional support for the hypothesis that developmental synaptic abnormalities may contribute to the pathophysiology of schizophrenia.

Summary:

Objective: Electron microscopy and biochemical studies indicate that abnormalities in synaptic organization may be present in brains of schizophrenics. This study determined whether these synaptic abnormalities are reflected in differential or uniform alterations in the expression of various synaptic protein genes.

Method: mRNAs encoding six synaptic proteins (synaptotagmin 1, rab3a, synaptobrevin 1, synaptobrevin 2, syntaxin 1A, and

SNAP-25) were measured postmortem in the left superiortemporal gyrus from elderly (58 to 95 years) schizophrenics (n=14) and age-matched controls (n-9).

Results: There were significant negative correlations between age and levels of synaptotagmin 1 (p65), rab3a, synaptobrevin 1, SNAP-25, and syntaxin 1A mRNAs in schizophrenics ($-0.692<r<-0.517$; $0.003<p<0.030$) but not in controls. Levels of all six synaptic protein mRNAs studied were increased in relatively young (58 to 79 years) schizophrenics compared with age-matched controls.

Conclusions: These results support the hypothesis that developmental synaptic abnormalities may contribute to the pathophysiology of schizophrenia. That similar abnormalities were found for mRNAs encoding different synaptic vesicle and synaptic plasma membrane proteins suggests that they reflect overall neurodevelopmental abnormalities in synaptic density in the temporal cortex of schizophrenics rather than changes in the number of synaptic vesicles per synapse or abnormalities in a specific synaptic function.

References:

1. Feinberg I. Schizophrenia: caused by a fault in programmed synaptic elimination during adolescence? J Psychiatr Res. 1982:3;17:319-334.
2. Shenton ME, Kikinis R, Jolesz FA, et al. Abnormalities of the left temporal lobe and thought disorder in schizophrenia. A quantitative magnetic resonance imaging study. *N Engl J Med* 1992; 327:604-612.

NR209 Tuesday, May 18, 9:00 a.m.-10:30 a.m. Shape Differences in the Hippocampus in Schizophrenia

Martha E. Shenton, Ph.D., Department of Psychiatry, Harvard Med Sch/Brockton VAMC, 940 Belmont Street, Brockton MA 02301; Guido Gerig, Ph.D., Robert W. McCarley, M.D., Gabor Szekeley, Ph.D., Ron Kikinis, M.D.

Educational Objectives:

Objective is to inform the clinician about brain abnormalities, particularly shape difference in the hippocampus, in schizophrenia.

Summary:

There is growing evidence to suggest that some structural brain abnormalities observed in schizophrenia are neurodevelopmental in origin. There is also evidence to suggest that shape deformations in brain structures may reflect abnormalities in neurodevelopment. While many MR studies have measured area, volume, and asymmetry of brain structures, few have focused on shape deformations. In the current study we used a hierarchical 3D shape representation technique based on spherical harmonic functions to describe the shape of the amygdala- hippocampal complex in 15 schizophrenic patients and 15 control subjects matched for age, gender, and parental social class. We also used an automatic model based segmentation of 3D object shapes, which was applied to volume data to automatically segment left and right amygdala-hippocampus shapes. Shape was normalized based on volume. Findings demonstrated shape differences between groups in both left and right amygdala-hippocampal complex ($p<0.025$). Shape, in fact, was a better discriminator between groups than volume. Additionally, in comparing manual versus automated shape segmentations, the agreement was 70% in overlapping voxels, which is quite high given that a 10X10X10 cube displaced by just one voxel shows only 57% agreement. These findings suggest that shape measures provide important information toward understanding the pathophysiology of schizophrenia.

References:

1. Shenton ME, Kikinis R, Jolesz FA, et al: Abnormalities in the left temporal lobe and thought disorder in schizophrenia- A quantitative magnetic resonance imaging study. N Engl J Med 1992; 327:604-612.
2. Näf M, Szekeley G, Kikinis R, Shenton ME, Kübler 0: 3D voronoi skeletons and their usage for the characterization and recognition of 3D organ shape. Computer Vision and Image Understanding 1997; 66 (2): 147-161.

NR210 Tuesday, May 18, 9:00 a.m.-10:30 a.m. Cigarette Smoking and Negative Symptoms in Schizophrenia

Ashwin A. Patkar, M.D., Department of Psychiatry, Thomas Jefferson University, 1201 Chestnut Street, Ste 1519, Philadelphia PA 19107; Kenneth M. Certa, M.D., Allan Lundy, Ph.D., Stephen Weinstein, Ph.D., Michael J. Vergare, M.D., Ronald D. Serota, M.D.

Educational Objectives:

To recognize the high prevalence of cigarette smoking among schizophrenic individuals and its possible relationship to certain symptom patterns.

Summary:

Objective: Although schizophrenic individuals are reported to have a higher prevalence of cigarette smoking (CS) compared with the general population, it is unclear whether CS is related to any particular symptom pattern in schizophrenia. In view of the dopaminergic properties of nicotine, reports of dopamine deficit among negative-symptom schizophrenics and recent studies suggesting the involvement of nicotinic receptors in schizophrenia, we investigated the relationship between CS and positive and negative symptoms of schizophrenia.

Method: Eighty-seven inpatients on a locked psychiatric unit with a DSM-IV diagnosis of schizophrenia were studied. Clinical information, including cigarette smoking, was recorded from physician interviews and chart reviews. Patients were assessed on the Positive and Negative Syndrome Scale (PANSS) by interviewers who were blind to patients smoking status. T tests and tests of correlation were employed for data analysis.

Results: Among the 71.3% of patients who smoked, 72.5% reported smoking more than 20 cigarettes per day. CS was not associated with age, sex, race, subtype of schizophrenia, duration of illness, dose of neuroleptics, or illicit drug and alcohol use. As predicted, CS was significantly associated with total negative symptom scores ($p<0.01$) as well as scores on five out of seven negative symptom subscales of the PANSS: blunted affect ($p<0.05$), emotional withdrawal ($p<0.01$), social withdrawal ($p<0.05$), difficulty in abstract thinking ($p<0.01$), and stereotyped thinking ($p<0.05$). However, CS was not associated with total positive symptom or general psychopathology scores or scores on any positive-symptom subscales.

Conclusion: Schizophrenic patients with more negative symptoms were more likely to be smokers and also to smoke more heavily compared with those with fewer negative symptoms. CS may serve as "self-medication" for particular symptoms among schizophrenic individuals and we plan to study the influence of smoking reduction on symptom patterns in such patients.

References:

1. Goff DC, Henderson DC and Amico, E: (1992) Cigarette smoking in schizophrenia: relationship to psychopathology and medication side effects. American Journal of Psychiatry, 143: 993-997.
2. Andreasen NC, Olsen S: (1982) Negative vs. positive schizophrenia: definition and validation. Archives of General Psychiatry, 39-789-794.

NR211 Tuesday, May 18, 9:00 a.m.-10:30 a.m. Caudate Volume in Schizotypal Personality Disorder: An MRI Study in Neuroleptic-Naive Subjects

James J. Levitt, M.D., Psychiatry, Brockton VAMC, Harvard Medical School, 940 Belmont Street/116A, Brockton MA 02401; Martha E. Shenton, Ph.D., Chandlee C. Dickey, M.D., Ron Kikinis, M.D., Ferenca Jolesz, M.D., Robert W. McCarley, M.D.

Educational Objective:

At the conclusion of this presentation, the participant should be able 1) better to appreciate the cognitive role of the caudate nucleus in frontal-basal ganglia circuits; and 2) understand more fully confounding effects of neuroleptic medication on the measurement of volumetric size of basal ganglia structures in schizophrenia spectrum disorders.

Summary:

Objective: The frontal-basal ganglia circuits are sites of interaction between the neurotransmitters glutamate and dopamine, hence, are critical to the neurochemistry of schizophrenia (SZ). The caudate, which receives both brainstem dopaminergic and cortical glutamatergic input, is a key striatal structure involved in these circuits, several of which are thought important both for cognitive and behavioral functions. Magnetic resonance imaging (MRI) studies have reported caudate enlargement of the caudate in SZs on medication, with one study showing reduced caudate volume in drug naive SZs. Additionally, conventional neuroleptics appear to increase caudate volume in SZ and clozapine reverses this effect. Because antipsychotic medication confounds the measurement of the caudate, schizotypal personality disorder (SPD) provides an interesting comparison population for the study of the caudate. Genetically, it is in the SZ spectrum and clinically it evinces similar, but less severe, psychotic and neuropsychological symptoms. Of most importance for this study, our subjects are neuroleptic naive and hence permit the separation of intrinsic from drug effects on the caudate.

Method: We conducted an MRI study of the caudate. MRI scans were obtained on a 1.5 Tesla magnet. For the measurement of specific regions of interest higher spatial resolution SPGR images (1.5 x .9375 x .9375 mm voxels) were used. For whole brain measurements, used to correct for head size, a spin echo double echo MR sequence was employed with 3 mm axial contiguous slices obtained; then reformatted and coregistered to 1.5 mm SPGR coronal obtained images; the resulting image was then segmented using an iterative Expectation-Maximization segmentation protocol. We have so far analyzed the MRI scans of eight right-handed male (SPD)s and eight normal controls (NCLs), who were age-, parental SES-, handedness- and sex-matched. Subjects were drug naive at the time of their scans.

Results: We found right, left, and total absolute caudate volume was smaller in SPD than in NCLs (4.37 v. 4.75 ml, p=0.11; 4.29 v. 4.64 ml, p=.24; 8.66 v. 9.39 ml. p= 165). When we corrected for head size by using a linear regression with intracranial contents (ICC) as the independent variable, saving the residuals for further analysis, this similarly revealed that right, left, and total corrected caudate volume was smaller in unmedicated SPD compared with NCLs (p=.16; p=.36; p=.25).

Conclusions: These preliminary data are suggestive of a reduction in caudate volume in unmedicated SPD subjects, and an expanded sample may confirm such a finding. Also, these data support that caudate enlargement may be secondary to a medication effect.

References:

1. Keshavan MS, Rosenberg D, Sweeney JA, Pettegrew JW: Decreased caudate volume in neuroleptic-naive psychotic patients. Am J Psychiatry 1998; 155:774-778
2. Benes FM, Paskevich PA, Davidson J, Domesick VB: The effects of haloperidol on synaptic patterns in the rat striatum. Brain Res 1985; 329 (1-2): 265-73

NR212 Tuesday, May 18, 9:00 a.m.-10:30 a.m. Subcortical Dopaminergic Activity in Schizotypal Personality Disorder

Harold W. Koenigsberg, M.D., Bronx VAMC, Mount Sinai, 130 W Kingsbridge Rd, Rm 3B50, Bronx NY 10468; Vivian Mitropoulou, M.A., Anissa Abi-Dargham, M.D., Melissa Nunn, B.S., Marc Laruelle, M.D., Larry J. Siever, M.D.

Summary:

Schizotypal personality disorder (SPD) patients share common phenomenology, genetics, and biology with schizophrenic patients, although they do not develop the chronic psychosis associated with schizophrenia. Studies from our laboratory have demonstrated that schizotypal personality disorder patients demonstrate cognitive impairment in visuospatial working memory, sustained attention, and verbal learning similar to, but less severe than, the impairment seen in schizophrenic patients. SPD patients also demonstrate structural abnormalities such as reduced temporal volume, as seen in schizophrenia, compared with controls. At the same time, unlike schizophrenic patients, SPD patients demonstrate reduced striatal volumes on MRI and reduced striatal metabolic activity by PET compared with controls; SPD patients not only do not experience worsening of their psychotic-like symptoms after administration of a dopamine releasing agent, but they rather experience an improvement of their negative symptoms and cognitive function. We have thus hypothesized that the subcortical activity of SPD patients may be less "responsive" to stimulation and therefore provide a "buffer" against the development of long-term psychosis. Preliminary data on four SPD patients who have participated in an [^{123}I] IBZM SPECT with amphetamine paradigm demonstrate that the dopamine release (expressed as % displacement) in the striatum in these patients is reduced compared with schizophrenic patients, but similar to normal controls (% displacement: SPD: 8.3± 4.5; NC:7.3±7; SZ: 16.7± 13.4). In a similar study that utilizes a glucose analog (2deoxyglucose- 2DG) to provide a physiologic "stress" paradigm, plasma HVA (a measure of dopaminergic activity) on the drug day was 0.59ng/ml ± 0.8 for four SPD patients, while four normal control subjects demonstrated an HVA response of 1.08±0.9 (SZ patients' response is 2.6±1.8). These results, which will be updated, support the hypothesis that SPD patients may have neurodevelopmental factors that protect them from developing overt psychosis and schizophrenia.

NR213 Tuesday, May 18, 9:00 a.m.-10:30 a.m.

Transmission Disequilibrium Test in Two Polymorphisms in the Serotonin Transporter Gene in Familial OCD

Margaret A. Richter, M.D., Anxiety Clinic, Clarke Institute, 250 College Street, Room 1148, Toronto ON M5T 1R8, Canada; Fariba Sam, B.Sc., Karyn E. Hood, M.Ed., Andrew Paterson, M.D., James L. Kennedy, M.D.

Educational Objectives:

At the conclusion of this presentation, the participant should be able to recognize the importance of the serotonin transporter gene in the mechanism of action of serotonin reuptake inhibitors, and have an appreciation of the role of genetics and candidate gene strategies in psychiatric disorders such as OCD.

Summary:

Objective: The serotonin transporter (5HTT) has been implicated in the etiology of obsessive-compulsive disorder (OCD), based on the action of anti-obsessional medications and observed associations between a functional polymorphism in the promoter region of the 5-HTT gene (SCL6A4) with anxiety-related personality traits and treatment response. We set out to explore the role of this gene more comprehensively by investigating the promoter region polymorphism as well as a VNTR polymorphism intron 2 in OCD.

Method: These two polymorphisms were typed in 47 well-characterized OCD trios (probands plus parents) and transmission disequilibrium tests (TDT) were performed. A second analysis was performed on the subset of trios with a positive family history.

Results: TDT testing of trios indicated that alleles of both the promoter region and intron 2 polymorphism were transmitted in a random fashion to OCD cases (X^2 =2.95, 1 df, p=0.09; X^2 =0 11, 2 df, p=0.75, respectively). There was no significant degree of linkage disequilibrium obvserved between these two sites. Testing of the familial OCD subset yielded similar results.

Conclusions: While our results do not provide support for a major role for the 5HTT in OCD, further investigation is warranted.

This work was funded by the Ontario Mental Health Foundation.

References:

1. Billett EA, Richter MA, King N, Hells A, et al: Obsessive compulsive disorder, response to serotonin reuptake inhibitors and the serotonin transporter gene. Mol Psychiatry 2-403-406, 1997.
2. McDougle CJ, Epperson CN, Price LH, Gelernter J: Evidence for linkage disequilibrium between serotonin transporter protein gene (SLC6A4) and obsessive compulsive disorder. Mol Psychiatry 3:270-273, 1998.

NR214 Tuesday, May 18, 9:00 a.m.-10:30 a.m.

Computer-Assisted Behavior Therapy for OCD

John H. Greist, M.D., Madison Institute of Medicine, 7617 Mineral Point Rd, Ste 300, Madison WI 53717; Isaac M. Marks, M.D., Lee Baer, Ph.D., J. Richard Parkin, M.B., Peter A. Manzo, M.S. W., Julia M. Mantle, R.N., Kenneth A. Kobak, Ph.D.

Educational Objectives:

At the conclusion of this presentation, the participant should be able to recognize the relative efficacy of a computer-assisted self-help behavior therapy program for OCD compared to human behavior therapy and relaxation control.

Summary:

Background: This study examined the efficacy of a comprehensive, computer-administered behavioral treatment program for OCD using interactive voice response (IVR) technology. The system, called BT STEPS, makes explicit the steps involved in the behavioral treatment of OCD and includes a workbook to guide the treatment process and 12 distinct IVR telephone calls (several used repeatedly). Patients design and implement their own treatment program, with support and monitoring provided by the IVR computer program.

Method: A total of 205 patients from eight sites were randomly assigned to receive either BT STEPS (BTS), human behavior therapy (HBT), or relaxation control (RLX). Ten weeks of active treatment followed a two-week "washout" period, consisting of pretreatment assessment tasks. BTS and RLX patients worked independently; HBT consisted of 11 weekly sessions. All patients met with a study coordinator at the end of two, six, and 10 weeks for safety and efficacy evaluations. An intent-to-treat analysis was employed. Patients with at least one post-baseline assessment were included in the analyses (BTS N = 60; HBT N = 55; RLX N = 71).

Results: Both BTS and HBT had significantly greater Yale-Brown Obsessive Compulsive Scale change than RLX (5.35, 7.83,and 1.66 respectively), p = .0001, with HBT significantly greater than BTS, p =.026. Thirty-five percent of BTS patients were responders ("much" or "very much improved" on PGI) at endpoint compared with 58.2% of HBT patients, p <.01 and 14.1 % of RLX patients, p <.01. Both BTS and HBT had significantly greater reductions than RLX in overall impairment as evaluated by the Work and Social Adjustment Scale, p < .01 for both comparisons. No significant difference was found between BTS and HBT in this regard.

Conclusions: BTS is an effective self-help treatment for OCD and may help fill the gap in the unmet need for human behavior.

References:

1. Greist JH, Marks IM, Baer L, et al: (1998). Home self-exposure therapy of obsessive compulsive disorder using a manual and a computer-conducted telephone interview: a US-UK study. MD Computing 15:149-157.
2. Baer L, Greist JH: (1997). An interactive computer-administered self-assessment and self-help program for behavior therapy. Journal of Clinical Psychiatry 58 (suppl 12): 23-28.

NR215 Tuesday, May 18, 9:00 a.m.-10:30 a.m.

The Effect of Cholecystokinin-Tetrapeptide in Social Phobia and OCD

Martin A. Katzman, M.D., Department of Psychiatry, Clarke Institute, 250 College Street, Toronto ON M5T 1R8, Canada; Jacques Bradwejn, M.D., Diana Koszycki, Ph.D., Franco J. Vaccarino, Ph.D.

Summary:

Objective: The panicogenic effects of peripheral administration of the cholecystokinin-B-receptor agonist cholecystokinin-tetrapeptide (CCK-4) and placebo were evaluated in patients with social phobia (SP), obsessive-compulsive disorder (OCD), and in normal controls (NC).

Method: Twelve SP's, eight OCDs and 12 NCs serving as their own controls, received an intravenous bolus of placebo and CCK-4.

Results: CCK-4-induced panic attacks occurred in 50% (6/12) of SP's, 38% (3/8) of OCD patients, and 8% (1/12) of NCs. Placebo-induced panic attacks occurred in 25% (3 / 12) of SP's, 13% (1/8) of OCD patients, and no NCs. Panic symptoms were more pronounced in the SP group than in the OCD or NCs, in terms of the number of symptoms (F=3.777, df=2, p=0.035; Bonferroni Post-Hoc difference between the SP and NC groups p=0.068). Similar findings were noted for total symptom intensity (F=5.305, df=2, p=0.011; Bonferroni Post-Hoc for SP and NC groups p=0.026) for both the placebo injection and CCK-4 injection (p=0.068).

Conclusion: These findings add further support for the hypothesised role for the CCK system in panic and anxiety. As well, the differential response to CCK-4, for SP and to a lesser extent OCD, appears to be in between the sensitivities of panic disorder patients and NCs. This continuum of sensitivities to the CCK-4 challenge contests the view put forward by Klein (1993) of entirely separate systems for anxiety and panic.

This study was funded by the Medical Research Council of Canada.

References:

1. Harro J, Vassar E, Koszycki D, Bradwejn J. Cholecystokinin in panic and anxiety disorders. Advances in Biological Psychiatry Vol. 1. 235-262. 1995.
2. Bradwejn J, Koszycki D, Meterissian G. Cholecystokinin-tetrapeptide induces panic attacks in patients with panic disorder. Can. J. Psychiatry. Vol. 35. Feb. 1990.

NR216 Tuesday, May 18, 9:00 a.m.-10:30 a.m.
Sleep Disturbances Associated with Adult ADHD

William W. Dodson. M.D., Department of Psychiatry, University of Colorado, 4455 East 12th Avenue, Denver CO 802120; Yuxin Zhang, Ph.D.

Educational Objectives:

To recognize the characteristic sleep disturbances commonly found in adults with ADHD and treat them appropriately.

Summary:

Objective: To determine the degree of impairment from sleep disturbances found in adults with ADHD.

Method: A questionnaire was given to 219 patients over 18 years of age who fulfilled lifelong DSM-IV criteria for ADHD and who had been on stimulant class medication for at least 6 months. All participants had confirmatory continuous performance testing. Responses were tabulated for type of sleep disturbance, severity, age of onset, and previous treatments tried. The effect of stimulant medication on sleep disturbances was assessed.

Results: 72% reported initiation insomnia of an average 104 minute duration that decreased to 26 minutes (P=0.0001), with stimulant medication therapy. 83% reported disrupted sleep every night that was significantly improved if the stimulant class medication was taken at least QID (P=0.05). 70% reported significant difficulty with waking and cognitive alertness in the morning until the first dose of the day was absorbed.

Conclusions: Severe sleep disturbances are common in adults with ADHD and may be an unrecognized cause of insomnia in the general population. Because initiation insomnia responded so well to stimulant class medications it should be understood as the mental and physical restlessness of ADHD and not a primary insomnia.

References:

1. Corkum. P, Tannock R, Moldofsky H: Sleep disturbances in children with attention deficit/hyperactivity disorder. J Am Acad Child Adolesc Psychiatry 37 (6): 637-646 , 1998
2. Dahl RE, Pelham WE, Wierson M: The role of sleep disturbances in attention deficit disorder symptoms: a case study. J Pediatric Psychology 16) 2): 229-39, 1991

NR217 Tuesday, May 18, 12 noon-2:00 p.m.
M300 in Normal Controls and Schizophrenia Patients

Jose M. Canive, M.D., Albuquerque Clin Psych Resrch, 1501 San Pedro SE (116A), Albuquerque NM 87108-1 Chris J. Edgar, M.S., Gregory Miller, Ph.D.

Summary:

The P300 response is generally assumed to be produced by multiple generators; however, EEG techniques are limited in their ability to localize the generators of the P300 response. Magnetoencephalographic (MEG) source localization techniques may prove more useful In localizing the generator. While a few MEG studies have attempted to localize the M300 response, these studies have used MEG systems with a low number of sensors, have restricted the area over which source localization was conducted, or have reported that they were unable to record a N1300 response. This study sought to examine the feasibility of recording and of localizing the M300 response with a 122-channel system and over localization algorithms.

Methods: A male sample of 5 schizophrenia and 5 normal control subjects participated in the study. 122 channels of MEG and 19 channels of EEG were simultaneously recorded. MEG data were analyzed 30 msec before to 30 msec after the P300 response. Different source localization algorithms (least squares multi-start simplex and R-MUSIC) were used to examine the localization of the generators during the 60 millisecond period confirmed that multiple dipoles were involved in generating the observed magnetic field during the 60 msec period. Preliminary estimates of dipole locations suggest parietal and temporal sources.

NR218 Tuesday, May 18, 12 noon-2:00 p.m.
Neurodevelopmental Disorders and Atypical M100 Asymmetries

Jose M. Canive, M.D., Albuquerque Clin Psych Resrch, 1501 San Pedro SE (116A), Albuquerque NM 87108; Chris J. Edgar, M.S., Steven W. Gangestad, Ph.D., Ronald A. Yeo, Ph.D., Dimitri Calvert, B.A., James T. Davis, Ph.D.

Summary:

Atypical asymmetries of the 100 millisecond auditory-evoked filed component (M100) have been found often in schizophrenia subjects. It is unclear whether this abnormality is specific to schizophrenia subjects or is instead shared across other neurodevelopmental disorders. This study tested two hypotheses: 1) M100 atypical asymmetries are common to both schizophrenia and dyslexia (a neurodevelopmental disorders), 2) measures of developmental instability (DI) - Minor Physical Anomalies (MPAs) and Fluctuating Asymmetries (FAs) - predict atypical M100 asymmetries.

Methods: A male sample of 17 schizophrenia, 25 dyslexia and 20 normal control subjects participated in the study. M100 auditory responses were recorded with 122 channel biomagnetometer. MPAs and FAs were used to assess DI.

Results: Schizophrenia subjects did not differ significantly from normal controls in M100 asymmetry measures, although a trend in that direction was apparent. Dyslexia subjects differed significantly from controls but not from schizophrenia patients. Schizophrenia and dyslexia subjects had higher MPA scores than controls, but DI measures did not predict M100 asymmetries for either group.

Conclusions: M100 atypical asymmetries are not exclusively related to schizophrenia and may represent a non-specific risk factor for other neurodevelopmental disorders.

NR219 Tuesday, May 18, 12 noon-2:00 p.m.
Decline in the Incidence of Schizophrenia

Jaana M. Suvisaari, M.D., Mental Health, National Public Health Inst, Mannerheimintie 166, Fin-00300 Helsinki, Finland; Jouko K. Lonnqvist, M.D., Jari K. Haukka, Ph.D., Antti Tanskanen, M.D.

Summary:

Objective: To assess whether the incidence of schizophrenia has changed and if so, whether the change was attributable to period- or cohort-related factors.

Method: We used the Finnish Population Register to identify everyone born in Finland in 1954-1965. These persons were followed up from their 16th to 26th birthday, and all cases of schizophrenia (ICD-8 and ICD-9, 295) that emerged were identified from the National Hospital Discharge Register, the Pension Register, and the Free Medicine Register. We used the Poisson regression model to estimate the effects of age, sex, birth cohort, period of diagnosis, and season of birth on the incidence of schizophrenia. The relative importance of cohort and period were assessed using age-period-cohort analysis.

Results: The incidence of schizophrenia among persons aged 16-25 years declined from 0.69 per 1000 in the 1954-1955 cohort to 0.47 per 1000 in the 1964-1965 cohort, and equally among both sexes. The effects of cohort and period on the change were both significant and of the same magnitude.

Conclusions: The incidence of schizophrenia has declined significantly. The significant cohort effect suggests that one or more risk factors for schizophrenia operating early in life have decreased in intensity.

Funding: Academy of Finland, Jalmari and Rauha Ahokas Foundation, Foundation for Psychiatric Research.

NR220 Tuesday, May 18, 12 noon-2:00 p.m.
Gender Differences in Premorbid Cognitive Functioning and Outcome in Schizophrenia

Mark Weiser, M.D., Department of Psychiatry, Sheba Medical Center, Tel Hashomer 52621, Israel; Abraham Reichenberg, M.A., Jonathan Rabinowitz, D.S.W., Zeev Kaplan, M.D., Mordehai Mark, M.D., Michael Davidson, M.D.

Summary:

Background: The existence of gender differences in cognitive functioning in schizophrenia is area of dispute; different studies find male schizophrenic patients more, less, or equally impaired compared with females. The few studies published on premorbid cognition indicate that males have poorer premorbid cognitive functioning compared with females.

Method: The Israeli Draft Board Registry, which contains cognitive assessments on all 16- to 17-year-old Israeli adolescents, was merged with the Israeli National Psychiatric Hospitalization Case Registry, which contains data on all psychiatric hospitalizations in the country. This merger yielded data on the premorbid cognitive functioning of 157 females and 605 males that were later hospitalized and diagnosed as suffering from schizophrenia. The cognitive test battery includes revised versions of the WAIS subtests on arithmetic and similarities; a modified version of the Raven's Progressive Matrices; a modified, Otis-type verbal intelligence test, and a composite global cognitive performance score, equivalent to IQ.

Results: Females scored lower (worse) than males on all subtests, the differences reaching statistical significance for global cognitive performance (p=0.045), and for Arithmetic-R. (p=0.000). However, when females and males were matched for age of onset, these differences disappeared.

Conclusion: When controlled for age of onset, there are no gender differences in premorbid cognition in schizophrenia, suggesting that the previous findings of poorer premorbid cognition in men are an artifact of their earlier age of onset.

NR221 Tuesday, May 18, 12 noon-2:00 p.m.
A Longitudinal Study of Cognitive Decline in Chronic Schizophrenia

Philip D. Harvey, Ph.D., Department of Psychiatry, Mt. Sinai Medical Center, One Gustave L. Levy Place, New York NY 10029; Joseph I. Friedman, M.D., Michael Parrella, Ph.D., Jeremy M. Silverman, Ph.D., Kenneth L. Davis, M.D., Leonard White, Ph.D.

Summary:

Although cross-sectioned prevalence studies of long-term hospitalized schizophrenic patients show age-related diminishing cognitive functioning unrelated to other known causes of dementia, the existence of a subgroup of patients with late-life, schizophrenia-related, cognitive decline, remains controversial. For more than five years we have been longitudinally assessing chronic schizophrenic patients with long-term hospitalization for changes in global cognitive impairments (CDR score 1.0) at baseline assessment. This group has now been followed for up to 60 months and has had up to three follow-up assessments of their cognitive functioning over this period. Survival analysis was used to examine the proportion of these patients who show a clear-cut worsening in cognitive functioning over time, i.e. an increase in CDR score to at least 2, indicating moderate or more severe symptoms of dementia. After 15 months, approximately 17% ± 2% showed cognitive decline. The cumulative risk rose to 34% ± 3% after 46 months and 51% ± 5% after 60 months. Initially less impaired patients with less than the median years of education (< 10 years) had a significantly greater risk of cognitive decline than those at or above the median (chi-square = 8,65, df = 1,P < 005). In addition, patients below the median age (< 71 years) showed, at a marginal level of statistical significance (chi-square 3.44, df = 1, p = 0.06), a lower risk of cognitive decline than those at or above the median. The results agree well with earlier results obtained in a smaller subgroup of patients (n = 160) over a shorter period and indicate substantial risk of cognitive decline among elderly, hospitalized, chronic schizophrenia patients.

NR222 Tuesday, May 18, 12 noon-2:00 p.m.
Efficacy of Quetiapine Fumarate in Partial Responders

Robin A. Emsley, M.D., Department of Psychiatry, University Stellenbosch, PO Box 19063, Tygerberg 7505, South Africa; Joher Raniwalla, M.D., Peter Bailey, B.Sc., A. Martin Jones, B.Sc.

Summary:

Most schizophrenic patients (pts) that practicing psychiatrists will treat are those who have not completely recovered from acute episodes, retaining clinically significant positive and negative symptoms. These pts may be referred to as partial responders. Quetiapine, a novel atypical antipsychotic, is effective for treating schizophrenia and is well tolerated. This study compared the efficacy and tolerability of quetiapine with haloperidol in pts who did not experience a sufficient response to one month's treatment with fluphenazine. Schizophrenic pts with a history of persistent positive symptoms while previously taking antipsychotics were entered into the run-in phase of an international, multicenter, double-blind, randomized trial. In the run-in phase, all 365 pts received fluphenazine (20 mg/day) for four weeks (wks). At the end of this period (Wk 4, baseline) those pts showing a reduction in PANSS total score of <30% and a PANSS positive score of ≥ 15 (ie partial responders, n=288) were randomized to quetiapine (600 mg/day, n=143) or haloperidol (20 mg/day, n=145) for eight wks. Both quetiapine and haloperidol were associated with marked reductions in PANSS total scores (primary endpoint), the mean change from baseline after four and eight wks' treatment being greater for quetiapine (-9.05 & -11.50) than haloperidol (-5.82 & -8.87); the difference between treatments after 4 wks' treatment approached statistical significance (-3.24, p=0.061). Statistically significantly more pts responded to treatment (defined a priori as ≥20% reduction in PANSS total score) in the quetiapine than the haloperidol group (52.2 vs. 38.0%, p=0.043). All other secondary efficacy endpoints showed greater improvements with quetiapine than haloperidol (not statistically significant). Quetiapine was significantly better tolerated than haloperidol: fewer quetiapine pts required anticholinergics (44.3 vs. 59.6%, p=0.011), had an increase in Simpson Scale score (23.9 vs. 39.1%, p=0.005), experienced EPS-related adverse events (13.6 vs. 30.5%, p<0.001). Fluphenazine elevated plasma prolactin. This was significantly reduced in the quetiapine compared with the haloperidol group (-601.39 vs. -20.54 mU/ml, p≤0.001). Quetiapine would appear to be more effective, and better tolerated, than haloperidol in pts classed as partial responders.

NR223 Tuesday, May 18, 12 noon-2:00 p.m.
Depressive and Anxiety Symptoms in Patients with Schizophrenia and Schizophreniform Disorder

Robin A. Emsley, M.D., Department of Psychiatry, University Stellenbosch, PO Box 19063, Tygerberg 7505, South Africa; Piet Oosthuizen, M.B., Andre Joubert, M.B., Mimi C. Roberts, M.B., Dan J. Stein, M.D.

Summary:

Symptoms of depression and anxiety are frequently encountered in schizophrenia. They may compromise social and vocational functioning, are associated with an increased risk of relapse and suicide, and are amenable to treatment. The sample comprised 177 patients with schizophrenia or schizophreniform disorder who were participants in multinational clinical drug trials at our unit over a 7-year period and who were assessed by means of the Positive and Negative Syndrome Scale (PANSS). Analysis was performed on baseline PANSS scores. The depression/anxiety score was compared in the men and women, first-episode and multiple-episode patients, and those with positive and negative syndromes. Correlations, were sought between depression/anxiety scores and other variables. Depression and anxiety symptoms were more prominent in women (p=0.0048), first- episode patients (p=0.03), and those with positive symptoms (p=0.0002). Depression/anxiety scores were significantly correlated with age (r=-0.3, p<0.0001), positive scores (r=0.38, p<0.0001) and treatment outcome (r=0.31, p=0.0005). The finding that these symptoms were more prominent in women and first-episode patients is consistent with previous literature. The association with positive symptoms suggests that they represent common clinical manifestations of the acute psychotic illness. Depressive and anxiety symptoms may predict a more favorable outcome to treatment.

NR224 Tuesday, May 18, 12 noon-2:00 p.m.
Effect of M100907 and Haloperidol on Voluntary Cocaine Intake in Rats

Jeannette C. Miller, Ph.D., Department of Psychiatry, New York University, 550 First Ave/Millhauser Lab, New York NY 10016; Arnold J. Friedhoff, M.D., Steve J. Offord, Ph.D.

Summary:

Objective: We investigated the effect of M100907, a selective five-HT2A antagonist, on cocaine craving in rats.

Method: In two independent experiments, Sprague Dawley rats were offered two solutions simultaneously: 0.03% saccharin and 0.025% cocaine hydrochloride in 0.03% saccharin. Rats with daily cocaine intake of >10 mg/kg over five days received one of 5 treatments (placebo; M100907 0.1 mg/kg; M100907 0.2 mg/kg; M100907 0.3 mg/kg; or haloperidol 0.1 mg/kg) subcutaneously once daily for four consecutive days. Cocaine consumption (mg/kg per day) was recorded throughout treatment and for four days after treatment.

Results: M100907 at doses of 0.1, 0.2, and 0.3 mg/kg reduced voluntary cocaine intake by 11%, 20%, and 30%, respectively. The effect was significant at the 0.2 [P=.002]- and 0.3-mg/kg dose [P<.001] compared with placebo. Haloperidol reduced cocaine intake by 6% [P=.964]. After treatment discontinuation, M100907-treated rats consumed markedly less cocaine than the placebo group, while cocaine consumption in haloperidol-treated rats was similar to placebo.

Conclusions: M100907 significantly and dose-dependently inhibited voluntary cocaine intake in rats and the effect persisted after treatment was stopped; no significant effect of haloperidol was observed. These data provide rationale for study of M100907 in schizophrenic patients with coexisting cocaine dependence.

Funded by Hoechst Marion Roussel.

NR225 Tuesday, May 18, 12 noon-2:00 p.m.
Correlates of Long-Term Unemployment and Perceptions of Capacity to Work Among Persons Living with Severe and Persistent Mental Illness

Richard W. Goldberg, Ph.D., Department of Psychiatry, University of MD-Baltimore, 685 W Baltimore St/MSTF Bldg, Baltimore MD 21201; Anthony F. Lehman, M.D., Lisa B. Dixon, M.D.

Summary:

Objectives: Unemployment rates remain high among persons with serious and persistent mental illness (SPMI). The current study identifies demographic, psychosocial, and clinical correlates of long-term unemployment among low-income inner-city adults receiving treatment for SPMI at a community-based mental health center. The study also examines the relationships

between the variables listed above and self-perception of work capacity.

Methods: The sample consists of 220 adults with SPMI who consented to participate in the University of Maryland, Baltimore, arm of the SAMHSA-funded, multisite Employment Intervention Demonstration Program. All participants completed a full battery of instruments including the SCID-IV, the Positive and Negative Syndrome Scale (PANSS), and an extensive client interview that included detailed demographic, vocational, and clinical sections as well as measures of several other functional outcomes such as quality of life, self-esteem, and social network.

Results: Fifty percent of the sample remained unemployed five or more years before enrollment. Analyses show that age, residential status, a psychotic diagnosis, severity of negative symptoms, hospitalization history, and vocational training history are all significantly related to long-term (five-plus years) unemployment. Twenty-eight percent of the sample reported seeing themselves as currently unable to work. This self-perception is significantly associated with age, a psychotic diagnosis, lower self-esteem, a poorer self-rating of overall functioning, a smaller social network, misperceptions about the relationships between work and continued receipt of benefits and entitlements, vocational training experience, negative work attitudes, and poorer self-ratings of quality of life.

Conclusion: Results from the current study have significant implications for the design and implementation of vocational rehabilitation (VR) programming for people living with SPMI. More specifically, findings suggest that VR programs need to provide a full range of services designed to address the multiple demographic, psychosocial, attitudinal, and clinical barriers to employment among persons living with SPMI.

NR226 Tuesday, May 18, 12 noon-2:00 p.m.
Disorder Versus Schizophrenia Pre- and Post-Treatment

Alexander Bystritsky, M.D., Department of Psychiatry, UCLA, 300 UCLA Medical Plaza, #2340, Los Angeles CA 90095; Robert Paul Liberman, M.D., Sanjaya Saxena, M.D., Sun Hwang, M.S., Charles J. Wallace, Ph.D., Karron Maidment, R.N., Tanya Vapnik, Ph.D.

Summary:

Objectives: Both obsessive-compulsive disorder (OCD) and schizophrenia can cause marked functional disability. We sought to determine comparative levels of disability in OCD and schizophrenic patients and evaluate functional improvements with treatment in these two populations.

Methods: The Independent Living Skills Survey (ILSS) (Vaccaro et al, 1992; Wallace et al, 1999) and Is Quality of Life Scale (LQLS) (Bystritsky et al, 1998) were administered to 21 OCD patients in the UCLA OCD Partial Hospitalization Program and to 32 schizophrenic patients in the Partners in Autonomous Living Day Treatment Program, before and after treatment. OCD patients received intensive cognitive-behavioral therapy and pharmacotherapy during a six-week period, while schizophrenic patients received pharmacotherapy and social skills training during a six-month period.

Results: Pre-treatment, OCD patients and schizophrenics had similar scores on every domain of the ILSS except health-related skills, which were lower in schizophrenics (p=0.03). Post-treatment, the two groups differed significantly on most ILSS domains, because of significantly greater functional improvements in OCD patients. OCD patients significantly lower subjective LQLS ratings, schizophrenics, before (p=.0001) and after treatment (p=.05), but only OCD patients improved significantly after treatment (p=.007).

Conclusions: Patients with severe OCD and patients with schizophrenia are equally functionally impaired, but OCD patients experience greater significant functional improvement with multimodal treatment.

NR227 Tuesday, May 18, 12 noon-2:00 p.m.
Enlarged CSF and Reduced Cortical Gray Matter in Schizotypal Personality Disorder

Chandlee C. Dickey, M.D., Department of Psychiatry, Harvard Medical School, 211 Longwood Avenue, Boston MA 02115; Martha E. Shenton, Ph.D., Yoshio Hirayasu, M.D., Margaret Niznikiewicz, Ph.D., Martina M. Voglmaier, Ph.D., Iris A. Fischer, B.A., Robert W. McCarley, M.D.

Summary:

One question in the field of structural imaging in schizophrenia is whether the abnormalities are focal or more widespread. One approach to answering this question is to examine subjects within the schizophrenia spectrum who do not have the complicating affects of medication or chronic illness, such as persons with schizotypal personality disorder (SPD). Previously, we reported reduced left superior temporal gyrus volumes on MRI images 1.5mm thick from 16 male, right- handed SPD subjects and 14 age-matched comparison subjects. In these same subjects, we have now examined measures of total intracranial contents, gray and white matter, and CSF volumes. Our data revealed a main effect of diagnosis and an interaction effect of tissue by diagnosis. More specifically, the SPD subjects had statistically significantly larger CSF volumes and a trend toward reduced cortical gray matter volumes compared with comparison subjects, but no differences in intracranial, total gray, or white matter volumes. There was also no difference in lateral ventricle or temporal horn volumes. From these findings we conclude that abnormalities in SPD may be both focal and diffuse and not the result of effects of medication or chronic institutionalization. We now plan to extend this research to include female SPD subjects.

NR228 Tuesday, May 18, 12 noon-2:00 p.m.
Low-Dopamine Trait in Families with Schizophrenia

Farooq Amin, M.D., Department of Psychiatry, VA Medical Center, 2002 Holcombe Blvd. RM 6C-316, Houston TX 77030; Patricia A. Calkin, M.D., Jeremy M. Silverman, Ph.D., Christopher J. Smith, B.S., Dianna Densmore, M.S., Larry J. Siever, M.D.

Summary:

Background: Relatives of schizophrenic probands are characterized by negative symptoms that are hypothesized to be due to reduced dopamine function. We have previously shown that in such relatives negative symptoms (assessed by PANSS) significantly inversely correlated with plasma homovanillic acid (pHVA), a major dopamine metabolite and an indicator of brain dopamine activity. In a subgroup of these relatives, Chapman Physical Anhedonia and Social Anhedonia assessments were also available. Since these anhedonia ratings are independently derived measures of the core negative symptoms, we hypothesized that anhedonia ratings will also be inversely correlated with pHVA.

Methods: Chapman anhedonia scores and pHVA data were available in 48 physically healthy nonpsychotic relatives who were included in this study. The sum of anhedonia ratings was used in data analysis.

Results: pHVA inversely correlated with anhedonia scores (r=-0.33, p=0.01). When gender and education (demographic variables significantly related to anhedonia but not to pHVA) were statistically controlled, the association between pHVA and anhedonia improved (r=- 0.38, p=0.008). These results were not due to major peripheral factors that can influence pHVA, suggesting that the findings may indicate brain DA activity.

Conclusions: Similar inverse associations of pHVA with the negative dimension of symptoms assessed either by PANSS or by Chapman anhedonia scales further support the view that reduced DA activity (as assessed by pHVA) may modulate negative schizophrenic symptoms. Since these anhedonia ratings reflect an enduring trait (and were assessed at different time points than pHVA in this study), and since pHVA was decreased in relatives compared with controls, these data suggest the presence of a low-dopamine trait in many family members of schizophrenic probands.

NR229 Tuesday, May 18, 12 noon-2:00 p.m.
Schizotypal Personality Disorder: Language and Gender

Martina M. Voglmaier, Ph.D., Department of Psychiatry, Harvard Medical School, 1493 Cambridge Street, Cambridge MA 02139; Larry J. Seidman, Ph.D., Margaret Niznikiewicz, Ph.D., Chandlee C. Dickey, M.D., Martha E. Shenton, Ph.D., Robert W. McCarley, M.D.

Summary:

Objective: Schizotypal personality disorder (SPD) may be characterized by disinhibition of the semantic language network, an abnormality which could result in symptoms of magical ideation, thought disorder, and deficits in verbal learning (e.g., Voglmaier, et al. 1997). The purpose of the current study was to evaluate the effect of gender on language skills in SPD.

Method: Twenty male and 16 female SPD subjects were administered a neuropsychological battery examining a wide range of cognitive domains. We specifically evaluated measures of vocabulary, verbal fluency, scholastic skills, naming, repetition, auditory comprehension, and verbal working memory.

Results: Verbal skills in general were found to be deficient in male SPDs (p<.05), although the relationship of these deficits to education and general intellectual ability was unclear. The deficits were not as apparent in female SPDs, who generally appeared to have less severe cognitive deficits than males with the disorder.

Conclusions: Language systems appear to be an area of cognitive vulnerability in SPD, and the severity of dysfunction may be gender-specific. The results are discussed within the context of differential character traits, positive and negative symptoms, and implied differences in neural networks involved in male and female SPD.

Supported by NIMH RO1 40799 and NIMH 1-RO1-MH52807.

NR230 Tuesday, May 18, 12 noon-2:00 p.m.
Prefrontal Dysfunction and Negative Symptoms in Schizophrenia Patients: A SPECT Study

Felipe Ortuno, M.D., Department of Psychiatry, University Clinic, Pio XII SN, Pamplona 31080, Spain; Luis Fernandez, M.D., Javier Arbizu, M.D., Jorge Pla, M.D., Salvador Cervera-Enguix, M.D.

Summary:

Introduction: This study has the following two goals: first, to test the hypothesis that schizophrenic patients fail to activate prefrontal blood flow (PBF) in response to the Wisconsin Card Sorting Test performance, and second to examinate the influence of positive and negative symptoms of schizophrenia on resting and activation PBF patterns. A Technetium-99-HMPAO-SPECT study was conducted in 18 schizophrenic patients and nine healthy subjects. It consisted on two SPECT sessions, one at rest and the other during the WCST performance. A correlation study between PBF, Index of Asymmetry, and several parameters of the PANSS was carried out.

Results: At resting conditions, there were no differences on PBF between groups, whereas during activation PBF was significatively higher in controls. During WCST activation, only the control group showed a significant increase in right PBF. An inverse significant correlation between IA during activation and the negative subscale of the PANSS was observed.

Conclusion: Failure to increase PBF and abnormal lateralization patterns during activation that are related to negative symptoms may characterize schizophrenia.

This study was supported by a grant of the Government of Navarra (Spain).

NR231 Tuesday, May 18, 12 noon-2:00 p.m.
Risperidone Restores Fronto-Parietal Activation by Working Memory Task in Patients with Schizophrenia

Tonmoy Sharma, M.D., Institute of Psychiatry, De Crespigny Park Denmark Hill, London SE5, United Kingdom; Garry D. Honey, Malini Varatheesan, Edward T. Bullmore, Steven C. Williams, William Soni

Summary:

Antipsychotic drug treatment of schizophrenia may be complicated by side effects of widespread dopaminergic antagonism, including exacerbation of negative and cognitive symptoms due to prefrontal hypodopaminergia. Risperidone increases prefrontal dopamine in animal models. Substitution of risperidone for typical antipsychotic drugs may be associated with enhanced functional activation of prefrontal cortex. We used functional MRI and verbal working memory task in two groups of schizophrenic patients at baseline and six weeks later. One group was treated with typical antipsychotic drugs throughout. Risperidone was substituted for typical antibiotics after baseline assessment in the second group. A matched group of healthy volunteers were also studied an a single occasion. Working memory activated a network of fronto-parietal brain regions in controls. Activation was relatively attenuated in both patient groups at base line and in the typically treated group at six weeks. The risperidone-treated group had significantly response at six weeks in dorsolateral prefrontal cortex, supplementary motor area, and parietal cortex (p 0.005). These data provide the first direct evidence for enhanced prefrontal cortical function in schizophrenic patients following substitution of risperidone for typical antipsychotic drugs, and indicate the potential value of fMRI as a tool for longitudinal assessment of psychopharmacological effects an cerebral physiology.

NR232 Tuesday, May 18, 12 noon-2:00 p.m.
The Effects of Risperidone and Typical Antipsychotic Drug Treatments on Verbal Fluency and Executive Function in Schizophrenia

Tonmoy Sharma, M.D., Institute of Psychiatry, De Crespigny Park Denmark Hill, London SE5, United Kingdom; Shaun T.

O'Neill, Robin G. Morris, Darren M. Mockler, William Soni

Summary:

The effects of risperidone (N=17) and typical antipsychotic drugs (N=18) on verbal fluency, spatial working memory and executive function were studied in patients with schizophrenia and the results compared with those from a group of healthy controls (N=24). The test battery included the Controlled Oral Word Association Test (verbal fluency), Tower of London Test (problem solving and planning ability), Executive Golf Task (spatial working memory), and Wisconsin Card Sorting Test (WCST); abstracting and set-shifting ability). The tests were performed at baseline and again after 6 weeks. Significant changes were seen on the WCST and Executive Golf Task. On the WCST, the risperidone group completed more categories and made fewer perseverative errors than either of the other two groups. A similar pattern of results was seen on the Golf Task: the risperidone group showed reduced between-search errors and improved strategy formation. No between-group differences were apparent on the Controlled Oral Word Association Test or Tower of London Test. The results indicate that improvement in aspects of executive function and spatial working memory are observed after a short period of treatment with risperidone.

NR233 Tuesday, May 18, 12 noon-2:00 p.m.
The Effect of Risperidone Versus Phenothiazine Neuroleptics on Smooth Pursuit Eye Dysfunction in Schizophrenia

Janusz K. Rybakowski, M.D., Department of Psychiatry, University of Medical Sciences, UL Szpitalna 27/33, Poznan 60-572, Poland; Alina Borkowska, Ph.D., Aleksander Araszkiewicz, MD, Alina Kucma, M.D.

Summary:

Schizophrenic patients and a significant proportion of their first-degree relatives show increased frequency and duration of intrusive catch-up saccades during smooth pursuit eye movement. In schizophrenia, these disturbances are significantly more marked in right than in left eye, pointing to greater pathogenetic involvement of the left hemisphere. In this study, these abnormalities were compared among 20 patients with paranoid schizophrenia receiving risperidone and 20 patients treated with phenothiazine neuroleptcs (chlorpromazine, levomepromazine, fluphenazine, perphenazine). Eye tracking was measured by infrared reflectometry, before pharmacological treatment (mean PANSS 117 p.) and after 6-12 weeks of treatment (mean PANSS 75 p.). Rapid catch-up saccades (RCS 100ms) and slow catch-up saccades (SCS>100ms) were defined. Following risperidone treatment, a significant decrease of RCS. SCS, and of total duration of (RCS + SCS) was observed.

Phenothiazine treatment brought no effect to any of these parameters. Right-left asymmetry of all these disturbances remained unchanged after both risperidone and phenothiazine treatment except for the asymmetry of SCS, which increased after phenothiazine neuroleptics. The results suggest that risperidone, unlike phenothiazine neuroleptics, may exert correcting effect on some eye-tracking dysfunctions in schizophrenic patients during smooth pursuit movements. This may correspond to the possibility of beneficial influence of this drug on cognitive functions in these patients.

NR234 Tuesday, May 18, 12 noon-2:00 p.m.
Anticholinergic Differences Among Patients Receiving Standard Clinical Doses of Olanzapine or Clozapine

K.N. Roy Chengappa, M.D., Department of Psychiatry, Western Psychiatric Institute, 3811 O'Hara Street, Pittsburgh PA 15213; Bruce G. Pollock, M.D., Haranath Parepally, M.D., Joseph A. Levine, M.D., Margaret A. Kirshner, B.A., Jaspreet S. Brar, M.D., Rebecca A. Zoretich, M.Ed.

Summary:

Objective: The authors' goal was to evaluate anticholinergicity among patients with psychoses who were receiving either olanzapine (n = 12) or clozapine (n = 12) at standard clinical doses.

Method: Serum anticholinergic levels were determined in subjects using a radioreceptor binding assay. The UKU scale and the MMSE provided clinical measures of anticholinergic and cognitive burden. Patients had achieved target doses that were stable at the time of the blood draw, and no other concomitant medicine with known anticholinergic potential was allowed.

Results: Patients receiving olanzapine (average dose - 15 mg/day) had serum anticholinergic levels of 0.96 (± 0.55) picomols/mL atropine equivalents as compared to 5.47 (± 3.33) picomols/mL for those receiving clozapine (average dose - 444 mg/day), $p < 0.001$. Except for a dry mouth among olanzapine treated subjects, other anticholinergic effects were more common among the clozapine treated subjects. Neither group showed any global cognitive deficits.

Conclusions: Olanzapine treated patients had less than one-fifth the anticholinergic levels in serum as compared to clozapine treated patients. Furthermore, clinical evaluations confirmed that clozapine treated subjects experienced more frequent and severe anticholinergic side effects (except dry mouth). However, none of the patients in either group expressed any desire to quit these medicines due to anticholinergic side effects.

NR235 Tuesday, May 18, 12 noon-2:00 p.m.
Efficacy and Safety Study Comparing Olanzapine Versus Haloperidol in the Treatment of Chinese Patients with Schizophrenia in Taiwan and Hong Kong

Pierre V. Tran, M.D., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Fan Zhang, Ph.D., Hai-Gwo Hwu, M.D., Felice Liehmak, Ph.D.

Summary:

These multicenter, randomized, double-blind trials compared the therapeutic profile of the novel antipsychotic, olanzapine (Olz. 5-20 mg) with haloperidol (Hal. 5-20 mg) in the treatment of schizophrenia and related disorders in Chinese patients from Taiwan and Hong Kong. In the Taiwan study, (N=54), following 14 weeks of therapy, Olz (n=26) showed significant advantages over Hal (n=28) in the Positive and Negative Syndrome Scale (PANSS) positive symptoms (mean changes from baseline. Olz-6.92 vs. Hal -2.32, p=.021), extrapyramidal symptoms (Abnormal Involuntary Movement Scale [AIMS] mean change from baseline. Olz -0.42 vs. Hal 0.64. p=.011), treatment-emergent akathisia (Barnes Akathisia Scale [BAS], Olz 22.7% vs. Hal 59.P=.031). anticholinergic use (Olz. 23. vs. Hal 89.3% p<.001), and serum prolactin elevation (Olz 20.0% N's. Hal 78.9%; p<.001). Additionally, Olz plasma concentrations in these patients were directly proportional to the dose.In the Hong Kong study (N=31).

after 14 weeks. Olz-treated patients (n=17) had significantly greater improvements than Hal-treated patients (n=14) in the mean change from baseline to endpoint on the Brief Psychiatric Rating Scale (BPRS) total score (Olz, -11.2 vs. Hal.-1.6; p=0.01). PANSS total (Olz-17.56 vs. Hal -4.431; p=.04), and response rates (Olz 62.5% vs. Hal 21.4%; p=.03). There were numerically greater improvements from baseline to endpoint on the Simpson Angus Scale, BAS, and AIMS with Olz compared with Hal. The Olz group had fewer treatment-emergent adverse events and a significantly lower incidence of prolactin elevation, while the Hal group had significantly less mean increase in weight. These results suggest that olanzapine. at doses of 5-20 mg/day, is a safe and effective treatment for schizophrenia and related disorders in Chinese patients from Taiwan and Hong Kong.

NR236 Tuesday, May 18, 12 noon-2:00 p.m.
Clinical Experience with Olanzapine in Patients of African, Asian and Hispanic Descent

Pierre V. Tran, M.D., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Gary D. Tollefson, M.D., Dana Creanga, Ph.D., Fan Zhang, Ph.D., Jeff Wang, Surya Vangala, M.S., Lynn Cousins

Summary:

Ethnic differences in pharmacokinetics and side-effect profiles of neuroleptics have been described in the literature. We examined the effect of olanzapine, a novel antipsychotic agent, in patients of different ethnic backgrounds from several clinical trials. The first study was an international blinded comparative trial of olanzapine (Olz, n=138) versus haloperidol (Hal, n=81) in 219 patients of African descent. After six weeks, the Olz group had a significantly superior improvement in response rate (>40% in BPRS total from baseline) than the Hal group (46.7% vs. 23.7%, p=0.001). The Olz group showed greater numerical improvement from baseline in mean Simpson Angus (SAS), Barnes Akathisia (BAS), and Abnormal Involuntary Movement (AIMS) scores than the Hal group; however, the differences were not statistically significant. The second study, also a blinded comparison between Olz (n=17) and Hal (n=14), was conducted in Hong Kong and enrolled 31 Chinese patients. After 14 weeks, the Olz group had a significantly superior improvement in response rate (>40% in BPRS total from baseline) than the Hal group (62.5% vs. 21.4%, p=.033). The Olz group had greater improvement from baseline in mean SAS and BAS scores than the Hal group, but the differences were not statistically significant. The third study, an open-label collaborative trial in six countries in Latin America, enrolled 94 patients of Hispanic descent. Patients intolerant to acute extrapyramidal symptoms due to haloperidol were switched to olanzapine. After six weeks, within-group comparisons showed that the patients had statistically significant improvement in mean BPRS total, SAS, and BAS scores from baseline (all p-values <001). These data suggest that olanzapine is effective and well tolerated in patients of African, Asian, and Hispanic descent.

NR237 Tuesday, May 18, 12 noon-2:00 p.m.
Smaller, Pathological Layer V Pyramidal Neurons in Prefrontal Cortex with Schizophrenia

James E. Black, M.D., Department of Psychiatry, University of Illinois, 405 N Mathews, Urbana IL 61801; Anna Y. Klintsova, Ph.D., Abhay Laddu, Aaron Grossman, Natalya A. Uranova, Ph.D., Ian Kodish, William T. Greenough, Ph.D.

Summary:

Objective: Basilar dendrites of Layer V pyramidal neurons have been quantified in prefrontal cortex (Area 10) and visual cortex (Area 17) using postmortem tissue from schizophrenic and healthy subjects.

Methods: Golgi-Kopsch stained blocks from Area 10 and Area 17 were processed from five schizophrenic subjects and six control subjects, all residents of Russia. Mean postmortem interval was 5.4 hours, and EM preparations show minimal postmortem artifacts. Each schizophrenia case met ICD-9 criteria, and all subjects were free of alcoholism and neurologic disease. Basilar dendrites of Layer V pyramidals were traced using a camera lucida with dendritic arborization quantified by the Sholl method.

Results: A two-way ANOVA showed a significant effect of diagnosis on total dendritic length in both Area 10 ($F(1,10) = 10.9$, $p = .009$) and Area 17 ($F(1,10) = 6.4$, $p = .032$). Prefrontal basilar dendrites from schizophrenic tissue were about half the total length of tissue from controls. The group differences are clearly apparent in both proximal and distal dendritic arbor. Total dendritic length was not significantly correlated with age or PMI.

Conclusion: Layer V pyramidal neurons in Area 10 were consistently rated as more pathological, corresponding to the Uranova & Orlovskaya (1996) report of consistent ultrastructural pathology of axons, dendrites, synapses, and glia. Schizophrenic neurons also had substantially smaller dendritic arbors. The smaller but significant difference in dendritic branching in Area 17 is surprising and suggests that schizophrenia may involve widespread cortical pathology.

Supported by NARSAD, McDonnell Foundation, and Kiwanis' Foundation.

NR238 Tuesday, May 18, 12 noon-2:00 p.m.
Relative Risk Estimate of Eye-Tracking Dysfunction in Siblings of Patients with Schizophrenia

Jonathan B. Strauss, B.S., CBDB, NIMH/NIH, Building 10, Room 4s23 9, Bethesda MD 20892; Robert J. Nicolson, M.D., Daniel W. Hommer, M.D., Daniel R. Weinberger, M.D., Michael F. Egan, M.D.

Summary:

Objective: Smooth-pursuit eye tracking dysfunction (ETD) has been consistently found in a high percentage of patients with schizophrenia and their first-degree relatives. This trait-like abnormality may be a useful neurobiological phenotype for genetic studies. We sought to assess relative risk, a measure of heritability, in a large sample of patients and their siblings.

Method: Our sample included 105 patients with schizophrenia or schizoaffective disorder, 146 of their unaffected siblings, and 49 normal controls. Smooth pursuit eye movement gain, root-mean-square error (RMSE), saccade frequency, and qualitative ratings were used to compare groups.

Results: Compared with controls, schizophrenic patients demonstrated significantly reduced gain and increased RMSE ($p<0.05$) and a trend toward inferior qualitative ratings. Siblings were not significantly different from controls on any measures; however, they showed a trend toward an increased rate of qualitatively abnormal eye tracking (14% vs. 6%). Siblings of patients with ETD (based on several measures) had a relative risk of ETD ranging from 2.1 to 8.1.

Conclusions: These data support previous findings of an increased prevalence of ETD in patients with schizophrenia. Relative risk estimates were in the low to moderate range, suggesting a possible role in detecting susceptibility genes associated with schizophrenia.

NR239 Tuesday, May 18, 12 noon-2:00 p.m.

High Social Phobia Scale Scores in Schizophrenia Do Not Correlate with Psychosis Symptom Severity Scores

Robert G. Stern, M.D., Department of Psychiatry, Bronx VAMC, 130 West Kingsbridge Road, New York NY 10468; Denise Frank, B.A., Hasan Mera, Sarah Ballou, B.A., Elke Schnur, B.A.

Summary:

Objectives: We assessed the presence and severity of social phobia symptoms among patients suffering from schizophrenia or schizoaffective disorder, and examined the relation between social phobia symptoms, psychosis symptoms and clinical global impression [CGI].

Design and Methods: After receiving instructions regarding purpose of the study and giving informed consent, neuroleptic treated patients with DSM-IV schizophrenia or schizoaffective disorder were interviewed and rated on the Liebowitz social phobia scale [LSAS] (Liebowitz 1987), the PANSS and CGI. Binomial correlation analysis assessed the relation between PANSS and CGI scores and LSAS scores.

Results: The analysis of the first 24 rating sets showed that as a group these patients (CGI range, mean± SD: 2-5, 3.6±1.4; PANSS: 34-102, 66.8±18) had high LSAS (range, mean, SD: 0-126, 57.3±35.1) scores. LSAS scores did not correlate with PANSS total (r=.1; p=.7) or PANSS general (r=.2; p=.5) or PANSS positive scores (r=.1; p =.7), or with PANSS negative scores (r = 1; p =.9). LSAS showed no significant correlation with CGI, but the correlation between PANSS and CGI (r=.7; p<.001) was markedly improved after controlling for social phobia symptoms severity CGI (r =.7; p <.001).

Conclusions: These preliminary results confirm that as a group neuroleptic-treated schizophrenic patients present a high severity of social phobia symptoms. Furthermore, the severity of those social phobia symptoms do not correlate with psychosis symptom severity. Comorbid social phobia symptoms appear to be detrimental to the patients' global clinical status and require specific therapeutic interventions.

NR240 Tuesday, May 18, 12 noon-2:00 p.m.

Increased Prevalence of Diabetes Mellitus Among Schizophrenic and Bipolar Patients

Robert G. Stern, M.D., Department of Psychiatry, Bronx VAMC, 130 West Kingsbridge Road, New York NY 10468; Muhammad Saleem, M.D.

Summary:

Method: The charts of all the patients with DSM-IV diagnoses of schizophrenia, schizoaffective disorder or bipolar disorder were reviewed for the presence of comorbid diabetes mellitus. Diabetes mellitus was determined either by the chart diagnosis or by the presence of fasting blood glucose level >140 on at least two separate occasions. The charts of 170 schizophrenia, 50 schizoaffective disorder, and 88 bipolar disorder patients were reviewed. Data were also collected on hypothesized risk factors (family history, alcoholism and its sequelae, specific medications) in the diabetic population and a random group of schizophrenics, schizoaffective, and bipolar nondiabetic controls.

Results: Data obtained from diabetic schizophrenics (n=308), schizoaffective disorder and bipolar disorder patients were analyzed. Preliminary analysis showed that 5.90% (13 out of 220) of schizoaffective and schizophrenic patients had DM, 4.54% (10 out of 220) had NIDDM and 1.36% (3 out of 220) had IDDM. Among the schizoaffective patients 6% (3 out of 50) had NIDDM and none had IDDM. Among the schizophrenia patients, 4.11% (7 out of 170) had NIDDM and 1.76% (3 out of 170) of them had IDDM. Finally among bipolar patients, 10.2% (9 out of 88) had DM, 9.09% (8 out of 88) had NIDDM and 1.13% (1 out of 88) of them had IDDM.

Of the subjects, 57% of schizophrenics and schizoaffectives are positive for alcohol use; 33.3% of bipolar are positive for alcohol use; 21% of schizophrenics and schizoaffective have abnormal liver function; 33% of bipolar patients have abnormal liver function. Differences in the prevalence of risk factors both groups will be presented.

Conclusion: There is a significant increase in the prevalence of DM among schizophrenic and bipolar patients as compared with the general population. NIDDM is the most prevalent type.

NR241 Tuesday, May 18, 12 noon-2:00 p.m.

Improvement in Markers of Health Status Six Weeks After Switching from Olanzapine to Ziprasidone

David G. Daniel, M.D., Clinical Studies Limited, 6066 Leesburg Pike, Falls Church VA 22041; Jeffrey A. Lieberman, M.D., Robert J. Birnbaum, M.D.

Summary:

Objective: To evaluate changes in key markers of health status in stable outpatients with schizophrenia who were switched from olanzapine to ziprasidone.

Methods: An interim analysis of a randomized, blinded-rater study in which stable outpatients (n=58) discontinued olanzapine and received ziprasidone 40-160 mg/day for six weeks. Standard laboratory tests and medical examinations were conducted at screening, baseline, and during the study.

Results: At baseline 49% of patients had a BMI of ≥30. After six weeks of treatment, there was a reduction in mean body weight in men (1.4 kg) and a significant reduction in women (2.3 kg; P<0.05). Median decreases between baseline and endpoint in plasma cholesterol (10%) and (28%) were also recorded. The percentage of patients with elevated triglycerides (I.2XULN) decreased from 35% at baseline to 9% at endpoint. Declines in SGOT, 60T, SGPT, LDH, and alkaline phosphatase were also observed. Psychopathology, as measured by standard rating scales, improved and ziprasidone was well tolerated.

Conclusions: These analyses indicate that the incidence of obesity and elevations in cholesterol and triglycerides and LFTs associated with olanzapine may be reduced when patients are switched to ziprasidone. These meaningful improvements in several key indicators of health status were observed after just six weeks. The implications of these findings warrant consideration in treatment selection for patients with schizophrenia and the long-term medical consequences require further study.

NR242 Tuesday, May 18, 12 noon-2:00 p.m.

Switching from Olanzapine to Ziprasidone: An Interim Analysis of a Six-Week Study

David G. Daniel, M.D., Clinical Studies Limited, 6066 Leesburg Pike, Falls Church VA 22041; Robert G. Stern, M.D., Thomas A.M. Kramer, M.D., Peter Powchik, M.D.,Switch Study Group

Summary:

Objective: To investigate switching patients with schizophrenia who required a charge in medication due to inadequate efficacy or unacceptable side effects, from olanzapine to ziprasidone.

Methods: An interim analysis of a randomized, blinded-rater study in which stable outpatients (n=58) discontinued olanzapine and received ziprasidone 40-160 mg/day for six weeks. Standard psychopathology rating scales and a cognitive battery were administered as part of the clinical assessment.

Results: After six weeks of treatment, there were significant reductions in PANSS total, and the PANSS positive and negative subscale scores as well as the CGI-severity score ($P<0.05$). Almost half the patients were rated as improved on the CGI and only 5% discontinued due to insufficient response. Significant improvements were seen in verbal learning and memory. Mean baseline movement disorder assessment scales scores and anticholinergic use were very low and remained so on ziprasidone treatment. Treatment emergent extrapyramidal side effects were very rare. Mean body weight decreased significantly and median cholesterol and triglyceride levels decreased.

Conclusions: Patients who may require a change from olanzapine therapy appear to benefit from switching to ziprasidone. Symptoms improved in many patients and ziprasidone was well tolerated. The significant improvement in verbal learning and memory, a key domain of cognitive function, on ziprasidone is noteworthy as this may be linked with functional outcome. Beneficial changes in markers of health status after just six weeks of ziprasidone therapy are also noteworthy.

NR243 Tuesday, May 18, 12 noon-2:00 p.m.
The Unique Human Receptor Binding Profile May Be Related to Lack of Weight Gain with Ziprasidone

Kenny J. Simansky, Ph.D., School of Medicine, Hahnemann University, 3200 Henry Avenue, Philadelphia PA 19129; Stevin H. Zorn, Ph.D., Ann W. Schmidt, M.S., Lorraine A. Lebel, M.S.

Summary:

Objective: To compare the affinities of antipsychotics at receptor and reuptake sites and deduce differences that might underlie the low incidence of weight gain observed with ziprasidone relative to other agents.

Method: Ziprasidone, olanzapine, risperidone, clozapine, quetiapine, and haloperidol were evaluated in human or bovine radioligand binding and rat synaptosomal reuptake studies.

Results: Relative to D2 receptor affinities, clozapine has higher affinity for 5HT2A&C, ml, H1; α–1 risperidone for 5HT2A and α–1; and quetiapine for H1, ml, and α–1 receptors. In contrast, ziprasidone has higher affinity for the combination of serotonin 5HT2A&C, 5HT1A, and 5HT1D and like risperidone has reduced relative affinity for H1 and α–1 receptors. Only ziprasidone moderately inhibits 5HT and NE reuptake and has high affinity for 5HT1D receptors. In clinical studies ziprasidone is associated with considerably less weight gain than clozapine and olanzapine and also less than quetiapine and risperidone.

Conclusion: The differences observed with ziprasidone suggest that the reduced HI and (α–1 receptor binding affinities as well as its unique profile of potent 5HT receptor interactions (including 5HTIA agonism) and its moderate inhibition of 5HT and NE neuronal reuptake all might contribute to its low potential for weight gain.

NR244 Tuesday, May 18, 12 noon-2:00 p.m.
Switching from Risperidone to Ziprasidone: An Interim Analysis of a Six-Week Study

George M. Simpson, M.D., Department of Psychiatry, USC School of Medicine, 1937 Hospital Place, Los Angeles CA 90033; Steven G. Potkin, M.D., Peter Powchik, M.D., Switch Study Group

Summary:

Objective: To investigate stable outpatients with schizophrenia, primarily seeking enhanced efficacy, who were switched from risperidone to ziprasidone.

Methods: An interim analysis of a six-week, randomized, blinded-rater study in which stable outpatients (n=24) were switched from risperidone to ziprasidone 40-160 mg/day. Assessments included the PANSS, CGI, and a battery of cognitive tests, as well as standard safety and tolerability monitoring.

Results: Statistically significant improvements were seen in the PANSS total score and the negative, positive, and cognitive subscales. The majority of patients (61%) were rated as improved on the CGI and only one discontinued due to inadequate efficacy. Also notable were the significant improvements in assessments of cognitive function, specifically: a computerized Continuous Performance Test, the Rey Verbal Learning Test, verbal fluency, Digit Span Distraction, and the Wisconsin Card Sorting Task. Ziprasidone was well tolerated. In addition, prolactin and triglyceride levels decreased substantially (85% and 13%, respectively).

Conclusions: The significant improvements in psychopathology and cognitive function in these patients switched from risperidone to ziprasidone are encouraging. Improvements in attention, vigilance, verbal learning and recall, and executive function indicated by these results suggest that ziprasidone has a beneficial effect on cognitive function in patients with schizophrenia.

NR245 Tuesday, May 18, 12 noon-2:00 p.m.
Reliability and Validity of Neuropsychological Performance and Cognitive Symptoms in Geriatric Schizophrenia

Leonard White, Ph.D., Clinical Neuroscience Ctr, Pilgrim Psychiatric Center, 998 Crooked Hill Road/81-102, West Brentwood NY 11717; Michael Parrella, Ph.D., Susan R. McGurk, Ph.D., Philip D. Harvey, Ph.D., Joseph I. Friedman, M.D., Kenneth L. Davis, M.D.

Summary:

Objective: This study examined the reliability and validity of clinical ratings of cognitive symptoms and negative symptoms, as well as performance on a neuropsychological battery.

Method: 415 elderly (age >65) inpatients with a DSM-IV diagnosis of schizophrenia were individually examined. Cognitive functioning was tested with the CERAD neuropsychological battery and symptom severity was rated with the PANSS. A composite index of cognitive performance was the average standardized score of the seven components of the neuropsychological battery. Cognitive symptoms and negative symptoms subscales were derived from the PANSS (Bell, Lysaker et al 1994). Internal consistency of the subscales was determined by Cronbach's Alpha. The relative magnitude of the correlations of the symptom subscales with cognitive performance was examined with the t-test for correlated variables. The cumulative effect of negative and cognitive symptoms in prediction of cognitive performance was examined by stepwise linear regression.

Results: Neuropsychological performance Alpha = .91; average inter-item correlation = .61. Negative symptoms Alpha = .86; average inter-item correlation = .47. Cognitive symptoms Alpha = .65; average inter-item correlation = .20. Negative symptoms correlated more strongly with neuropsychological performance

than did cognitive symptoms (t (df 412) = 2.2; p< .05). Linear regression Multiple R2 = .33.

Conclusion: Clinical ratings of "cognitive" symptom severity have a modest association with measures of neuropsychological performance in elderly schizophrenic patients. These findings did not support of the validity the "cognitive symptoms" construct.

NR246 Tuesday, May 18, 12 noon-2:00 p.m.
Movement Disorder, Memory, Psychiatric Symptoms, and Dehyrdroepiandrosterone in Schizophrenia

Debra S. Harris, M.D., Department of Psychiatry, UC San Francisco, Box CPR 0984/401 Parnassus Ave, San Francisco CA 94143; Owen M. Wolkowitz, M.D., Victor I. Reus, M.D.

Summary:

Objective: Prior studies have found low serum levels of dehyrdroepiandrosterone (DHEA) in patients with schizophrenia and in some elderly controls with motoric and cognitive impairments. This study was designed to assess the relationship between DHEA levels and DHEA/cortisol ratio and the severity of movement disorder, memory impairment, and psychiatric symptoms in chronic schizophrenia.

Methods: Abnormal movements, memory, and psychiatric symptoms in 17 chronic schizophrenic or schizoaffective inpatients (nine male and eight female) at a state hospital were evaluated using the Gerlach (St. Hans) Rating Scale, Weingartner Memory Test, and the Brief Psychiatric Rating Scale (BPRS).

Results: Controlling for age, higher DHEA levels and higher DHEA/cortisol ratios correlated with better performance on certain memory tests and with lower ratings of parkinsonian symptoms. Higher DHEA/cortisol ratios were also significantly correlated with lower scores on total BPRS and four subscales. DHEA or DHEA/cortisol ratios were not related to hyperkinesia measures.

Conclusion: These results suggest that low DHEA levels or low DHEA/cortisol ratios may identify a particularly impaired subgroup of patients with schizophrenia. They also raise the possibility that DHEA may have beneficial effects on recall, pseudoparkinsonism, and psychiatric symptoms in chronic schizophrenic patients and encourage clinical trials of DHEA in this population.

NR247 Tuesday, May 18, 12 noon-2:00 p.m.
OCD in First-Episode Schizophrenia

Michael Poyurovsky, M.D., Department of Research, Tirat Carmel, PO Box 9, Tirat Carmel 30200, Israel; Michael Schneidman, M.D., Kamil Fuchs, M.D., Abraham Weizman, M.D.

Summary:

Objective: Findings regarding the frequency of obsessive-compulsive symptoms in schizophrenic patients have been limited by the retrospective nature of the studies, chronic duration of illness, different diagnostic criteria, and effects of chronic neuroleptic treatment. The authors sought to determine the prevalence of obsessive-compulsive disorder (OCD) in drug-naive first-episode, schizophrenic patients.

Method: All consecutively hospitalized (July 1997-July 1998) patients with first- episode DSM-IV schizophrenia disorder were assessed by the Structural Clinical Interview for DSM-IV and appropriate rating scales. Treating physicians and first-degree relatives were also interviewed.

Results: Seven (14%) of the 50 schizophrenic patients also met DSM-IV criteria for OCD. Compared with schizophrenic patients without OCD, the schizo-obsessive subgroup scored significantly lower for formal thought disorder (SAPS.- p< 0.05) and flat affect (SANS; p< 0.05) subscales.

Conclusions: A substantial proportion of first-episode schizophrenic patients has comorbid OCD which has a possible "protective" effect on some schizophrenic symptoms during the early stages of the illness.

NR248 Tuesday, May 18, 12 noon-2:00 p.m.
MRI Volumetric Studies of Atypical Antipsychotics

Samuel C. Risch, M.D., Department of Psychiatry, Medical University of SC, 67 President St/PO Box 250861, Charleston SC 29425; Ziad H. Nahas, M.D., Mark B. Hamner, M.D., Monica Molloy, M.S.N., C. Lindsay Devane, Ph.D., Susan D. Owens, B.S., Mark S. George, M.D.

Summary:

Several groups have reported that clozapine pharmacotherapy may reverse caudate enlargement associated with typical antipsychotic pharmacotherapy. The effects of other atypical antipsychotics on caudate size are currently being studied. We will report ongoing studies of the effects of atypical antipsychotics (clozapine, risperidone, olanzapine, etc.) on caudate volume in patients previously treated with typical antipsychotics. To date, 16 patients with RDC-diagnosed schizophrenia have been imaged with structural and functional MRI before and after the initiation of long-term atypical antipsychotic pharmacotherapy.

Our preliminary data confirm that clozapine reduces caudate volume in patients previously treated with typical antipsychotics. However, the effects of other atypical antipsychotics on caudate volume vary and in some cases may cause further caudate enlargement. These studies may help differentiate among atypical antipsychotics and their relative propensities to extrapyramidal side effects and tardive dyskinesia.

Acknowledgement: Janssen Pharmaceuticals and Eli Lilly Corporation.

NR249 Tuesday, May 18, 12 noon-2:00 p.m.
Mismatch Negativity in First-Episode and Chronic Schizophrenia

Dean F. Salisbury, Ph.D., Department of Psychiatry, Harvard Med/McLean Hospital, 115 Mill Street, NBG21, Belmont MA 02021; Iris A. Fischer, B.A., Martha E. Shenton, Ph.D., Deirdre Farrell, B.A., Carlos A. Zarate, Jr., M.D., Robert W. McCarley, M.D.

Summary:

Objective: Auditory mismatch negativity (MMN) is elicited approximately 150 msec after presentation of a deviant stimulus in a repetitive pattern. MMN is thought to be evoked pre-attentively and to index echoic memory comparison of a stimulus to a neural trace of previous stimuli. This potential is most likely generated in primary and secondary auditory cortex in the temporal lobe. Most studies in chronic schizophrenic patients have demonstrated reduced MMN amplitude, but there is sparse investigation of MMN during the early stage of the disease.

Method: EEG was recorded to 1 kHz standard tones (95%) and 1.2 kHz deviant tones (5%) presented over headphones at 75dB nHL. Subjects were instructed to ignore the tones and to perform a visual checkerboard reversal tracking task. Subjects included 13 chronic schizophrenics, 16 first-episode schizophrenics, and two age-matched control groups.

Results: Chronic schizophrenic patients were significantly smaller than controls in MMN amplitude ($p < .05$). By contrast, MMN amplitude was not reduced in the first-episode schizophrenia group compared with their age-matched controls.

Conclusions: MMN reduction is present in chronic schizophrenia, but not at schizophrenia onset. Thus, MMN reduction may develop with disease duration. Since P300 abnormalities and posterior superior temporal gyrus gray matter reductions are present at disease onset, such progressive MMN reduction may reflect spreading cerebral dysfunction from posterior to anterior temporal lobe structures.

NR250 Tuesday, May 18, 12 noon-2:00 p.m.
Insight in Schizophrenia and Related Disorders

Zeelaf B. Munir, M.D., Department of Psychiatry, Washington University, 4940 Childrens' Place/Box 8134, St. Louis MO 63110; John Mathews, M.D., John G. Csernansky, M.D.

Summary:

Objective: This study determined if unawareness of illness is related to severity of psychopathology, whether it is a persistent state or a trait amenable to treatment, and its relationship with age of onset of illness, initial treatment delay, and utilization of hospital resources. Additionally, it examined whether insight improves selectively during treatment with atypical antipsychotics.

Methods: Subjects selected were 69 consecutive inpatients admitted to a public psychiatric hospital. Diagnosis was established using DSM-IV criteria. The PANSS and the SUMD measures were administered during semi-structured interviews at admission and discharge. Data were analyzed using stepwise multiple regression and t-tests.

Results: There was a moderate positive correlation between having poorer insight and severity of positive symptoms. A moderate negative correlation was found between poorer insight and severity of depressive symptoms. The subjects insight improved significantly during treatment; however, the strongest predictor at discharge remained the insight at admission. There was a trend associating a typical antipsychotic with improvement in insight.

Conclusions: At least some degree of awareness of illness may be due to active positive symptoms and that clinicians may be optimistic regarding possible improvements in insight during inpatient treatment. The association with depressive symptoms suggests that psychosocial interventions may be especially needed in such patients.

R251 Tuesday, May 18, 12 noon - 2:00 p.m.
Differing Side Effect Burden with Newer Antipsychotics

Peter J. Weiden, M.D., Department of Psychiatry, St. Luke's/Roosevelt Hospital, 411 West 114th Street, Ste 3B, New York NY 10025; Joan A. Mackell, Ph.D.

Summary:

Objective: This study compares side effect profiles between patients on conventional and newer atypical antipsychotics.

Method: A self-administered survey was mailed in June 1998 to persons with schizophrenia, identified through NAMI and NMHA chapters. Data included demographic, treatment variables, and structured side effect variables: tremor, weight gain, sedation, and sexual dysfunction.

Results: Most of the 253 respondents (71%) were receiving an atypical antipsychotic —clozapine, risperidone, olanzapine, quetiapine. The group on conventionals reported more problems with tremors than those on atypicals both in frequency (12% versus 7%, $p = .14$), and distress (16% versus 7%, $p = .06$). In contrast, patients on atypicals were more likely to report weight gain (34% versus 16%, $p < .01$), sedation (29% versus 8%, $p < .001$), and sexual dysfunction (19% versus 14%, $p = .32$). These differences could not be accounted for by covarying baseline differences. Women reported a significantly higher frequency of weight gain than men (39% versus 22%, $p < .01$) along with greater distress (53% versus 25%, $p < .001$).

Conclusion: Self-reported side effect profiles diverge between older and newer antipsychotics. Based on patient report, clinicians should shift emphasis from EPS, focusing more on weight gain, sedation, and sexual dysfunction.

NR252 Tuesday, May 18, 12 noon-2:00 p.m.
Switching from Conventional Antipsychotics to Ziprasidone: An Interim Analysis of a Six-Week Study

Peter J. Weiden, M.D., Department of Psychiatry, St. Luke's/Roosevelt Hospital, 411 West 114th Street, Ste 3B, New York NY 10025; George M. Simpson, M.D., Thomas A.M. Kramer, M.D., Philip D. Harvey, Ph.D., Peter Powchik, M.D., Switch Study Group

Summary:

Objective: To investigate the course of switching outpatients with schizophrenia who have efficacy problems or unacceptable side effects from their conventional antipsychotics to ziprasidone.

Methods: An interim analysis of a 6-week, randomized, blinded-rater study in which stable outpatients (n=68) were switched from their maintenance conventional antipsychotic medication to ziprasidone 40-160 mg/day.

Results: 65% of patients were rated as improved on the CGI-I at week 6. Mean PANSS total, positive, negative, and cognitive subscales and CGI-severity scores decreased significantly ($p<0.05$) from baseline. There were reductions in mean BPS movement disorder scores and a substantial decrease in the percentage of patients requiring anticholinergic medication. Significant improvements in cognitive function tests related to motor skill, planning, and to verbal learning and recall were also observed. The most frequent adverse events with ziprasidone included nausea, headache, somnolence and insomnia. Baseline prolactin levels decreased and body weight change was negligible.

Conclusions: The significant improvements in psychopathology and reductions in EPS without any additional weight gain were observed after 6 weeks of ziprasidone therapy. This study suggests that ziprasidone will be helpful for many "stable" outpatients who have persistent symptoms or EPS side effects on their current conventional antipsychotic.

NR253 Tuesday, May 18, 12 noon-2:00 p.m.
APO-E4 Gene Frequency in Schizophrenia

Smita Kittur, M.D., Perrypoint VA Hospital, Perry Point MD 21902; Peter Hauser, M.D., Mitchel A. Kling, M.D., John Kusiak, Ph.D.

Summary:

Although studies suggest that genetic factors play a significant role in schizophrenia, the specific genetic etiology remains undetermined. Since cognitive deficits occur in schizophrenia with advancing age, similar to Alzheimer's disease, a question arises if APO-E is a risk factor for schizophrenia. APO-E is a soluble

protein which normally functions as a ligand for low density lipoprotein and hepatic E receptor. There are four isoforms of the proteins encoded by a single gene which is polymorphic in the population. Recently it has become apparent that one of the isoforms of APO-E is associated with A.D. Population studies have shown that the gene for the APO-E4 isoform is highly prevalent in people with Alzheimer's disease. Since APO-E4 is also known to bind beta amyloid, a protein implicated in the pathogenesis of A.D., this isoform of APO-E is considered to be an important factor in the pathogenesis of the dementia of Alzheimer's type. To investigate if APO-E4 is also a risk factor for schizophrenia and other dementias, we studied APO-E4 gene frequency in 33 patients with schizophrenia, 45 patients with other dementias, 30 patients with Alzheimer's disease and 35 non-demented controls by PCR analysis. We find that APO-E4 is a specific marker for Alzheimer's disease, but not for schizophrenia and other dementias.

NR254 Tuesday, May 18, 12 noon-2:00 p.m.

A 28-Week Comparison of Ziprasidone and Haloperidol in Outpatients with Stable Schizophrenia

Steven R. Hirsch, M.D., Department of Psychiatry, Charing Cross, St. Dunstan's Road, London W6 8RP, United Kingdom; Aidan Power, M.D.

Summary:

Objective: A randomized, double-blind study to compare flexible-dose oral ziprasidone 80-160 mg/day (n=148) with haloperidol 5-15 mg/day (n=153) over 28 weeks in outpatients with stable chronic or subchronic schizophrenia.

Method: Patients with a baseline PANSS negative subscale score ≥10 and a GAF score >30 were assessed using the PANSS, CGI-S, MADRS, Simpson-Angus, Barnes Akathisia, and AIMS scales.

Results: Modal doses at endpoint were 80 mg/day and 5 mg/day for ziprasidone and haloperidol, respectively. Robust improvements in all efficacy variables with both ziprasidone and haloperidol were observed. The percentage of patients classified as PANSS negative symptom responders at endpoint (≥ 20% reduction) was significantly greater with ziprasidone compared with haloperidol (48% vs. 32%; P<0.05). A trend for greater efficacy in improving depressive symptoms was also observed with ziprasidone. Ziprasidone was associated with fewer adverse events and discontinuations than haloperidol. Ziprasidone had clear advantages over haloperidol in all evaluations of movement disorders. Changes in body weight were negligible with both treatments.

Conclusions: Ziprasidone and haloperidol were both effective in reducing overall psychopathology. Ziprasidone was superior in the treatment of negative symptoms and was better tolerated than haloperidol. Thus, ziprasidone appears to offer a superior alternative to haloperidol in the medium-term treatment of stable outpatients.

NR255 Tuesday, May 18, 12 noon-2:00 p.m.

The Comparative Anti-Muscarinic-Like Adverse Event Profiles of Olanzapine and Risperidone Treatment in Patients with Schizophrenia Spectrum Psychosis

John S. Kennedy, M.D., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center, Indianapolis IN 46285; Bruce R. Basson, M.S., Pierre V. Tran, M.D., Charles M. Beasley, Jr., M.D., Frank P. Bymaster, M.S., Gary D. Tollefson, M.D.

Summary:

Hypothesis: That affinity differences between olanzapine (OLZ) and risperidone (RISP) would be reflected in objective, peripheral antimuscarinic-like (A-M-L) adverse events. Change in PANSS Thought subfactor (PTS) score was evaluated to determine if doses effective in reducing thought disturbance had been employed.

Methods: Double-blind, randomized trial of OLZ versus RISP in 339 patients aged 18-65 with schizophrenia spectrum acute psychosis.

Results: Mean PTS for both treatments improved over time, with a trend toward more significant improvement with OLZ treated patients (p = 0.069). Frequencies of treatment-emergent A-M-L events at any time during 6 months of treatment were: dry mouth (OLZ=22.2%, RISP=20.6%, p = 0.731); constipation (OLZ=9.6%; RISP=9.7%, p = 0. 971); blurred vision (OLZ=9.6%, RISP=20.6%, p = 0.005); and micturition difficulties (OLZ=3.6%, RISP=5.5%, p =.414). Proportion experiencing at least one of these four events was: OLZ=32.9%, RISP=37.6%, p=0.376. At week one, proportion experiencing at least one treatment-emergent A-M-L event was higher in the RISP group than in the OLZ group (23.0% vs. 13.8%, p=0.029).

*Conclusion:*The incidence of anti-muscarinic-like effects seen with OLZ was comparable to that seen with RISP treatment, suggesting that the compounds' in vitro muscarinic Ki's do not predict in vivo effects at clinical doses which are associated with a reduction in thought disturbance.

NR256 Tuesday, May 18, 12 noon-2:00 p.m.

The Texas Medication Algorithm in the Real World

Albana M. Dassori, M.D., Department of Psychiatry, UTHSCSA, 7703 Floyd Curl Drive, San Antonio TX 78284-7792; John A. Chiles, M.D.

Summary:

New medications and cost pressures have produced significant changes in the treatment of schizophrenia. APA and PORT guidelines provide some reference for practitioners but implementation issues remain. The Texas-Medication Algorithm (T-MAP) adopts a specific approach regarding selection of medications, treatment response and dose adjustments. Efficacy of T-MAP is the current focus of a funded research project. Our site is unique in that we implemented the T-MAP schizophrenia module in a public sector clinic without additional funding.

Results: Over 300 patients with schizophrenia or schizoaffective disorder have been screened with the positive and negative symptom questionnaire. Seventy-six have entered the algorithm, and to date 35 have completed three or more critical visits. Twenty-eight patients entered at stage 1, 19 met maintenance criteria on either risperidone (n=13) or olanzapine (n=6), 5 improved although did not meet maintenance criteria and 4 went on to stage 2. Mean positive score of patients meeting maintenance criteria at stage 1 was 5.89 (2.4) and mean negative score was 8.15 (SD=3.07). Two of four patients going on to stage 2 achieved maintenance criteria. Four of seven patients entering the algorithm at stage 2 reached maintenance criteria on olanzapine. Two patients went on to stage 3 and one went on to stage 5.

Conclusions: The schizophrenia algorithm can be used within a cost-conscious outpatient clinic. Brief standardized ratings inform practice. Algorithm use and rating training enhance staff education.

NR257 Tuesday, May 18, 12 noon-2:00 p.m.
Clozapine Therapy in Veterans

Martha Sajatovic, M.D., Department of Psychiatry, Cleveland Veterans Affairs, 345 Timberidge Trail, Gates Mills OH 44040; C. Raymond Bingham, Ph.D., David L. Garver, M.D., Gary Ripper, M.A., Frederic C. Blow, Ph.D., Luis F. Ramirez, M.D., Larry Lehmann, M.D.

Summary:

This study is an analysis of outcomes of clozapine therapy based on data collected over a five-year period by the national Clozapine Coordinating Center as part of a national quality assurance protocol for management of clozapine therapy in the VA. Patient psychopathology was rated with the Brief Psychiatric Rating Scale (BPRS) and involuntary movements were rated with the Abnormal Involuntary Movement Scale (AIMS). The BPRS positive symptoms, negative symptoms, hostility symptoms, and depressive/anxious symptoms subscales were assessed. 2,996 individuals, mean age 44.8, ±10.2 years were prescribed clozapine at mean dosage of 503 mg/day. 49% (N=1,467) had a history of assaultiveness to others, while 430 patients (14.4%) had been assaultive in the month prior to beginning clozapine. 42.3% (N=1,267) of veterans had a history of suicide attempts and 5% (N=51) had suicide attempts in the month prior to starting clozapine. Overall, 56.5% (N=295) of the sample improved on clozapine. Mean baseline BPRS (available for 552 patients) was 49.6, ±14.1, while endpoint mean BPRS was 37.0, ±12.3 (p<.001). There was significant improvement on AIMS from a mean baseline of 5.4 to a mean endpoint of 3.0 (p=.0001). Patients with the most robust clozapine response had higher BPRS scores, higher daily dosage, and more suicidality. Clozapine is an important therapeutic agent for veterans with treatment-refractory schizophrenia. Administrations that treat individuals with a high degree of aggression/suicidality may particularly benefit from practices and policies that promote appropriate use of this novel antipsychotic.

NR258 Tuesday, May 18, 12 noon-2:00 p.m.
Effect of Chronic Olanzapine Treatment on the Course of Presumptive Tardive Dyskinesia

Bruce Kinon, M.D., Lilly Research Lab, Eli Lilly And Company, Lilly Corporate Center, Indianapolis IN 46285; Bruce R. Basson, M.S., Virginia Stauffer, Ph.D., Denai Milton, M.S., Gary D. Tollefson, M.D.

Summary:

Objectives: Novel antipsychotic drugs may offer a treatment for tardive dyskinesia (TD). In preliminary studies, clozapine as well as olanzapine (OLZ) have demonstrated a reduction of TD symptoms that improves over weeks to months (Lieberman et al. 1991: Littrell et al. 1998; O'Brien and Barber 1998). The effect of OLZ on reducing the symptoms of presumptive TD was investigated in a large clinical trial database out to 30 weeks.

Methods: Patients (N=129) with presumptive TD were identified from three controlled multi-center clinical trials (HGAD, E003, HGAJ) that investigated the efficacy and safety of olanzapine treatment (2.5-20 mg/day: double-blind) of schizophrenia for up to 52 weeks. Presumptive TD was defined as a severity rating of moderate in at least one of seven body regions assessed with the Abnormal Involuntary Movement Scale (AIMS) at 2 consecutive drug-free baseline visits (2-9 days apart). Patients were rated weekly for the initial 6 weeks of OLZ treatment and then every 2 to 8 weeks thereafter depending on the study. Analysis included patients treated up to 30 weeks.

Results: Mean AIMS Total scores (items 1-7) were determined at each visit. The baseline (Week 0) mean AIMS Total was 10.55. The mean AIMS Total was significantly reduced from baseline by Week 1 and remained significantly lower at all subsequent assessments ($p<0.05$ for all weeks; within-group: signed-rank test). Mean reductions of 55% and 71% were noted at Week 6 and 30, respectively.

Conclusions: Retrospective analysis of patients with presumptive TD entering an OLZ clinical trial demonstrates a significant reduction of mean AIMS Total scores. The marked and persistent effect for up to at least 30 weeks suggests that OLZ may contribute to the improvement of TD through a mechanism other than neuroleptic masking of symptoms.

NR259 Tuesday, May 18, 12 noon-2:00 p.m.
Strategies for Switching from Conventional Antipsychotic Drugs to Olanzapine

Bruce Kinon, M.D., Lilly Research Lab, Eli Lilly And Company, Lilly Corporate Center, Indianapolis IN 46285; Bruce R. Basson, M.S., S.K. Malcolm, B.S., Gary D. Tollefson, M.D.

Summary:

Objective: This study compared the efficacy and safety of four strategies for switching patients from conventional APDs to olanzapine.

Method: In this study, 209 outpatients with a diagnosis of schizophrenia or schizoaffective disorder who were clinically stable while being treated with a conventional APD or risperidone were openly randomized to either abrupt discontinuation or graduated withdrawal of their prior APD. Patients were further randomized in a double-blind fashion to: a) olanzapine 10 mg QD for 3 weeks: or b) a sequence of one week each on placebo, olanzapine 5 mg QD, and olanzapine 10 mg QD. The efficacy of these 4 switching paradigms was assessed using the CGI scale, PGI scale, and PANSS. Safety assessments included ratings for EPS, cognitive impairment, and adverse events.

Results and Conclusions: The strategy of gradual APD discontinuation combined with full dose of olanzapine 10 mg had the greatest efficacy and tolerability evident as early as week 1. None of the 4 switching paradigms was associated with overall clinical worsening. These data suggest that stable outpatients can be switched to olanzapine, if indicated, without experiencing an increased vulnerability to relapse or to occurrence of APD withdrawal symptoms.

NR260 Tuesday, May 18, 12 noon-2:00 p.m.
Olanzapine Versus Clozapine: An International Double-Blind Study of the Treatment of Resistant Schizophrenia

Charles M. Beasley, Jr., M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Jean-Noel Beuzen, MD, Martin A. Birkett, M.S., Gerilyn M. Kiesler, Pharm.D., Gary D. Tollefson, M.D., Andrew J. Wood, Ph.D.

Summary:

Olanzapine (mean: 22.2 ± 3.9 mg/day) was compared to clozapine (mean: 354.2 ± 146.1 mg/day) in the treatment of patients with treatment resistant DSM-IV schizophrenia with $BPRS_{1-7}$ total score ≥ 45 and a score of ≥ 4 on at least 2 positive symptom psychosis items. Treatment resistance was defined as retro-

spective failure to respond adequately to 2 previous antipsychotic treatments, each from a different chemical class, given for at least 6 weeks at a dose of at least 500 mg chlorpromazine equivalents or highest tolerated dose. There were 90 patients treated with each agent in a double-blind randomized fashion for up to 18 weeks.

Mean change (LOCF) in PANSS scores were: Total (olanzapine -25.6. clozapine -22.1); Positive (olanzapine -6.8, clozapine -6.4); Negative (olanzapine -7.1, clozapine -5.6). Based on the PANSS Total Score, the treatment effect favored olanzapine by 3.5 points with a one-sided lower 95% confidence limit of -2.2 points. A lower limit of -4 points for the treatment effect was defined *a priori* as the basis of declaring "non-inferiority" and since the one-sided lower 95% confidence limit was ≥ -4, olanzapine was shown to be "non-inferior" to clozapine.

There were six spontaneously reported adverse events that occurred with significantly different incidences between the two treatments. Dry mouth was more frequent among olanzapine-treated patients. Constipation, increased salivation, dizziness, nausea, and tooth disorder were more common among clozapine-treated patients. Treatment-emergent akathisia, parkinsonism, and dyskinesias occurred at comparable incidence as assessed by the Barnes Akathisia Scale, Simpson-Angus Scale, and AIMS.

NR261 Tuesday, May 18, 12 noon-2:00 p.m.
Pharmacoeconomic Evaluation of the Treatment of Schizophrenia in Germany: A Comparison of Olanzapine and Haloperidol

Johannes Clouth, GBMH, Lilly Deuts Chland, Saalburgstrasse 153, Bad Homburg D61350, Germany; A. Spannheimer

Summary:

Objective: A Markov simulation model is used to examine the overall costs, the cost-effectiveness and costs per QALY associated with olanzapine versus haloperidol in the treatment of patients with schizophrenia in Germany.

Method: By means of a Markov model a time period of 5 years is analysed. Probabilities as e.g. relapse rates and symptoms under both treatments were derived from an international clinical trial. The resource utilizations and costs were determined on the basis of published sources and information obtained from an expert panel of psychiatrists. Direct medical and non-medical costs as well as indirect costs are considered in the evaluation. Model uncertainties are examined using sensitivity analysis.

Results: While olanzapine has higher drug acquisition costs than haloperidol, it generates savings when considering the overall costs. The treatment with olazapine results in average overall costs of DM 119 572 per patient for 5 years wheras the treatment with haloperidol resulted in average overall cost of DM 121 868 per patient for 5 years. The cost savings are caused by a lower relapse rate and better symptomatology under olanzapine which is reflected by fewer resource utilization compared with haloperidol. The results of the evaluation suggest that olanzapine is more effective than haloperidol as measured by Brief Psychiatric Rating Scale scores. non-relapse rates and QALYs. The evaluation would also appear to show a higher degree cost-effectiveness in the case of olanzapine as compared with that of haloperidol.

Conclusion: Despite initially higher drug acquisition costs, the treatment of schizophrenic patients with olanzapine tends to be associated with both lower overall costs and better cost-effectiveness as compared with that of haloperidol-treated patients. In view of this, olanzapine appears to present a cost-effective treatment option.

NR262 Tuesday, May 18, 12 noon-2:00 p.m.
Sexual Function in Antipsychotic-Treated Patients

Ruth A. Dickson, M.D., Department of Psychiatry, University of Calgary, 3500 26th Avenue NE, Calgary, AB T1Y 6J4, Canada; William M. Glazer, M.D., Joan M.C. Hillson, Ph.D., Stephen A. Boucher, M.D.

Summary:

Objective: To design, develop and psychometrically refine a theoretically driven, computerized self-report questionnaire of sexual functioning (the DGSF Scale) for antipsychotic-treated patients diagnosed with three schizophrenia spectrum disorders.

Methods: Stable outpatients with schizophrenia or schizoaffective disorder, attending a clinic in Calgary, Canada, were invited to participate. Functioning across the sexual response cycle, relationship status, sexual and reproductive history, partner/non-partner sexual activity and perception of impact of antipsychotic use on sexual functioning was assessed using the DGSF (female/male versions).

Results: Thirty-eight females and 52 males completed the study. The DGSF is a user-friendly instrument requiring: a) no computer experience, b) about fifteen minutes to complete, and c) grade 8.5 reading level. Patients (98%) preferred computerized evaluation vs. pen and paper evaluation of sexual functioning. Type of sexual activity varied by gender. In the two weeks pretest, more females than males engaged in partner-related activity (30% vs. 10%) and males masturbated more frequently (75% vs. 26%). Thirty-five per cent of both sexes were bothered by sexual side effects that they attributed to their antipsychotic drug prescription. Psychometric properties will be described.

Conclusions: 1) Sexual dysfunction was common in the population studied. 2) The DGSF scale is a promising tool to quantify sexual functioning in antipsychotic-treated patients.

NR263 Tuesday, May 18, 12 noon-2:00 p.m.
P50 Evoked Potential Measures Correlate with Positive and Negative Syndrome Scale Scores in Unmedicated Patients with Schizophrenia

Radmila M. Manev, M.D., Psychiatric Institute, University of Illinois, 1601 West Taylor Street, Chicago IL 60612; Patricia Tueting, Ph.D., Huma Pandit, M.D., Rajiv P. Sharma, M.D., John M. Davis, M.D.

Summary:

Objective: The suppression of auditory P50 evoked potential amplitude (sensory gating) is abnormal in schizophrenia. Our goal was to investigate whether, in schizophrenia patients, P50 measurements correlate with clinical symptoms measured by the Positive and Negative Syndrome Scale (PANSS).

Method: Eight medication-free, acutely ill schizophrenic inpatients were tested. Two identical clicks (1500- Hz) were presented binaurally at 500 misec interval witn a mean 8 sec intertrial period. Cz recordings were digitally filtered and averaged after single trial editing (band pass 10-50 Hz); amplitude of the P50 response to the first and second click was measured from the preceding negative peak. The PANSS was completed twice within one week by teams of trained and reliable raters: five PANSS dimensions were scored and the total score was calculated.

Results: We found that P50 S1 amplitude correlated negatively, and the P50 S2/S1 ratio correlated positively with total PANSS score. A significant positive correlation was found between the S2/S1 ratio and disorganized thought.

Conclusion: To our knowledge this is the first report of a significant correlation between P50 and PANSS-rated symptoms in unmedicated acute schizophrenia patients. Further studies are needed to evaluate the usefulness of this correlation for monitoring response to pharmacological treatments.

NR264 Tuesday, May 18, 12 noon-2:00 p.m.
Sexual Side Effects of Atypical Antipsychotic Medications

Donna A. Wirshing, M.D., Research/Bldg 210, Rm 15, West Los Angeles VA Med Center, 11301 Wilshire Blvd. (B151-H), Los Angeles CA 90073; Vincenzio Perkins, M.D., Stephen R. Marder, M.D., William C. Wirshing, M.D.

Summary:

Objective: Sexual side effects of both conventional and novel antipsychotics have received little systematic investigation. In part this is due to the difficulty patients and physicians have in talking about these matters.

Methods: A 15-item structured interview, The Sexual Functioning Questionnaire (Burke et al., 1994), was administered to 25 patients participating in two double-blind research protocols, one comparing risperidone (RIS) to haloperidol (HAL) and the other comparing RIS to clozapine (CLOZ). This instrument asks subjects to compare their present sexual functioning to their normal functioning. The instrument also evaluates long term (over the past two years) and short term (over the past two weeks) sexual functioning.

Results: 35% of RIS and 50% of HAL but only 20% of CLOZ treated subjects reported worse than normal sexual functioning. 28% of RIS, 33% of HAL, and 60% of CLOZ treated subjects reported unchanged or improved functioning on their current treatment. 50% of RIS, 40% CLOZ, and 33% HAL treated patients reported minimal sexual interest and activity over both the short and long term.

Conclusions: The results suggest that schizophrenia patients experience high levels of sexual dysfunction. They further indicate that antipsychotic therapy of any class may further compromise this functioning, and underscore the importance of regularly monitoring sexual function in this population.

NR265 Tuesday, May 18, 12 noon-2:00 p.m.
The Quantitative Morphology Using MRI of the Corpus Callosum, Thalamus and Cerebellum in Schizophrenia in Korea

Jeong-Seop Lee, M.D., Department of Psychiatry, Inha University, 7-206, 3rd St, Shinheung-Dong, Jung-Gu, Incheon, Korea; Min-Hee Kang, M.D., Chul-Eung Kim, M.D.

Summary:

This study aimed to planimetrically measure the corpus callosum, thalamus and cerebellum in schizophrenia in Korea. The midsagittal brain MR images of 20 schizophrenic subjects who met the DSM-IV diagnostic criteria and 22 comparison subjects were collected. MR images were redigitalized with flatbed scanner and the data were analyzed with NIH IMAGE 1.61 software. Pixel counting and area measurements were done. The corpus callosum was divided into seven regions and the cerebellar vermis was divided into three regions. In male schizophrenic subjects, the genu of corpus callosum was found to have significantly smaller area than comparison subjects. But in female subjects no significant difference was found in corpus callosum area. The cerebellar vermis and thalamus did not differ between two groups. The genu area of the corpus callosum in male schizophrenic patients in Korea was significantly smaller. This finding suggests that male schizophrenics have more neurodevelopmental abnormalities and supports the theory of abnormal prefrontal lobe development.

NR266 Tuesday, May 18, 12 noon-2:00 p.m.
Lie-Detection Tools in Diagnosing Psychosis

Minna K. Valkonen-Korhomen, M.D., Department of Psychiatry, Kuopio University Hospital, PO Box 1777, 70211 Kuopio, Finland; Jairi Karhu, Ph.D., Professor Pasi Karjainen, Johannes Lehtonen, M.D., Anu Koistinen, M.Sc., Professor Juhani Partanen

Summary:

Objective: Frontal lobes supervise the functioning of autonomic nervous system. A sympathetic hyperarousal, habituation deficits of the SCR and hypofrontality have been reported associated with schizophrenia. A useful tool for detecting the risk groups is still missing.

Method: 15 never-medicated patients (12 females, mean age 31(16-47) years) were recorded during an acute psychotic episode (PANSS scores 107(99-120)) and compared with 19 healthy controls (6 females, mean age 29 (9-43) years). SCRs were recorded (Neuroscan) during an oddball paradigm with 8 "novel" stimuli. The data was divided to epochs with respect to each of novel stimulus and principal component analysis was completed.

Results: Patients' overall SCR onset latency was faster and the amplitude of the responses was lowered. Normal controls showed a solid and stable time-locked (1500-250ms) set of responses. Psychotics did not display any stable time-locking of responses. There were two borderline cases in both groups in which the pictures of the analysis could not reveal the diagnosis.

Conclusions: We show a deficit of constructing a time-locked SCR pattern in acute psychosis which may be related to malfunctioning of prefrontal cortical supervisory systems. This seems to be a persistent character of the illness and a potential diagnostic tool in the future.

NR267 Tuesday, May 18, 12 noon-2:00 p.m.
Olanzapine in Schizophrenia-Refractory Atypicals

Jean-Pierre Lindenmayer, M.D., Department of Psychiatry, Manhattan Psych Ctr/Wards Isld, Nathan S. Kline Institute, Ward's Island NY 10035; Jan Volavka, M.D., Jeffrey A. Lieberman, M.D., Leslie L. Citrome, M.D., Brian B. Sheitman, M.D., Pial Czobor, Ph.D., Miranda H. Chakos, M.D.

Summary:

Patients with treatment-resistant schizophrenia represent a persistent mental health problem. The only recognized pharmacological treatment for these patients is clozapine. While 30% to 55% of these patients will respond to clozapine, a substantial number will remain treatment-refractory. Olanzapine, which has structural and pharmacological similarities with clozapine, has been shown to have good antipsychotic efficacy in treatment-responsive patients. Its superior efficacy in treatment-refractory patients has not been established so far. We examined the antipsychotic response to olanzapine 20 to 40 mg/day in treatment-refractory inpatients with DSM-IV schizophrenia or schizoaffective disorder who had failed specified and adequate trials of typical neuroleptics as well as of atypical antipsychotics

(clozapine or risperidone). 33 inpatients were prospectively enrolled after informed consent in a 14-week open label trial of olanzapine monotherapy. Measures included the Positive and Negative Syndrome Scale (PANSS), Clinical Global Impression (CGI), Nurses' Observation for Inpatient Evaluation (NOSIE), Overt Aggression Scale (OAS), Extrapyramidal Symptom Rating Scale (ESRS) and a neuropsychological test battery. Mean age was 41.6 years and mean duration of illness was 22.1 years. 18.1% of the sample reached the improvement criteria of 20% reduction in total PANSS. In terms of syndromal improvement only the depression/anxiety PANSS factor reached significant improvement ($p<.05$). Correlates of improvement were shorter duration of illness and higher PANSS base line score, but not olanzapine dose level. Implications of these findings for the treatment of refractory schizophrenia patients will be discussed.

NR268 Tuesday, May 18, 12 noon-2:00 p.m.
The Longitudinal Relationship of Clinical Symptoms, Cognitive Functioning and Adaptive Life Skills in Geriatric Schizophrenia

Susan R. McGurk, Ph.D., Pilgrim Psychiatric Center, 998 Crooked Hill Rd, Bldg 81, West Brentwood NY 11717; Patrick J. Moriarty, M.A., Philip D. Harvey, Ph.D., Michael Parrella, Ph.D., Leonard White, Ph.D., Kenneth L. Davis, M.D.

Summary:

Cognitive dysfunction is increasingly being recognized as a major contributor to the adaptive impairment seen in most patients with schizophrenia. Reported here is a prospective longitudinal evaluation of the relationship between cognitive and adaptive functioning; in elderly patients with schizophrenia. It was hypothesized that baseline cognitive and negative, but not positive symptoms, would be predictive of cross-sectional impairment and longitudinal outcome. Subjects were 168 elderly patients with schizophrenia, free of major neurological disorders, who were residents of a long-term psychiatric facility. Subjects were assessed at baseline and again an average of 15 months later. The PANSS was used to assess severity of symptoms of schizophrenia. Cognitive symptoms were assessed using the components of the CERAD cognitive battery. Social and adaptive functioning was assessed using the SAFE Scale. Pearson correlations were determined among clinical variables, and the rank ordering of prediction of SAFE scale scores at follow-up was determined using a stepwise regression procedure. At follow-up, adaptive life skills correlated with cognitive performance and negative symptoms (Pearson r's 0.41-0.57, all p's <0.0001), but not positive symptoms (r=0.09, n.s.). Among cognitive tasks, verbal learning and memory was most highly correlated with adaptive skills at followup. These results confirm and extend previous studies that indicate that cognitive impairments are predictive both cross-sectionally and longitudinally of adaptive life skills in persons with schizophrenia. Negative symptoms, but not positive symptoms were correlated with impaired adaptive skills. Taken together, these results underscore the need to develop more effective treatments for cognitive and negative symptoms in schizophrenia.

NR269 Tuesday, May 18, 12 noon-2:00 p.m.
The Link Between Drug Attitudes, Compliance Behaviors and Resource Use Among Individuals with Schizophrenia

A. George Awad, M.D., Department of Psychiatry, Clarke Institute, 250 College Street, Toronto ON M5T 1R8, Canada; Vera Mastey, M.S., Diana McDonnell, A.B.D.

Summary:

Objective: This study assesses the link between compliance attitudes, behaviors, and resource use.

Method: This study uses cross-sectional data from a June 1998 survey of 354 individuals with schizophrenia. Using the Drug Attitude Inventory (DAI), compliant attitudes are categorized as "non-compliant" (-10 to 0), "somewhat compliant" (1 to 6), and "very compliant" (7 to 10). Behaviors include medication switching (yes/no) and skipping (a 5 point scale).

Results: More respondents with non-compliant attitudes switched their anti-psychotic medication in the past year (41%) than those who are somewhat (28%) or very (21%) compliant ($P=.02$). They are also more likely to report skipping medication ($p<.06$, ANCOVA, side effects controlled).

Respondents who switched their medications in the past year are more likely to have been hospitalized in the past six months (32%) than those who did not switch (12%) ($p<.001$). More switchers (32%) than non-switchers (20%) also report ER visits ($p<.03$). Those who skip their medications are more likely to have used the ER (38%) than those who did not skip (20%) ($p=.02$).

Conclusion: Clinicians need to assess and address patients' subjective feelings on medication and their attitudes towards them. Such factors can influence their compliance behavior as well as the extent of resource utilization.

NR270 Tuesday, May 18, 12 noon-2:00 p.m.
A Seven-Year Naturalistic Study of New and Atypical Neuroleptics in a State Hospital Setting

Cheryl K. Cantrell, M.D., Delaware Psychiatric Center, 1901 North Dupont Highway, New Castle DE 19720; Eric S. Cole, Ph.D.

Summary:

Objective: To compare response rates in chronic inpatients to naturalistic trials of clozapine, risperidone and olanzepine over a seven year period in a state facility.

Method: Between 1991 and 1998 chronic psychiatric inpatients were given clinical trials of clozapine (N=100, average duration 23 months, average dose 485 mg/day), risperidone (N=234, average duration 7.8 months, average dose 5.1 mg/day) or olanzapine (N=132, average duration 8.1 months, average dose 16.5 mg/day). Response rates were assessed longitudinally with physician report on a 6 point Likert scale.

Results: Percentages of patients showing "good to excellent" response rates ranged from 38% in 1991 to 68% in 1997 on clozapine; from 30% in 1994 to 47% in 1998 on risperidone; and from 38% in 1997 to 62% in 1998 on olanzepine. A geriatric subset of patients showed a 56% response rate to risperideone in 1998. The cumulative response rate of patients on all new neuroleptics was 38% in 1991 and between 42% and. 50% every subsequent year. The best results were risperidone on geriatrics, clozapine on refractory chronics and olanzepine on younger psychotics.

Concluslions: All of these agents have demonstrated good effectiveness in our refractory patient population; and an improving response rate over time.

NR271 Tuesday, May 18, 12 noon-2:00 p.m.
Symptom Dimensions in Schizophrenia and Mania: A Factor Analytic Study

David B. Schnur, M.D., Department of Psychiatry, Elmhurst

Hospital, 79-01 Broadway, Elmhurst NY 11373; Scott P. Smith, Ph.D., Olanyi Oluleye, M.D., Adam Smith, Ph.D., Prathap R. Vaadyala, M.D., Mikhail Manasherov, M.D.

Summary:

Objective. To examine the nature of symptom dimensions in a heterogenous sample of schizophrenic and manic patients.

Method: A factor analysis with varimax rotation was carried out on 105 schizophrenic and 62 bipolar manic inpatients who had been rated with the Positive and Negative Syndrome Scale. Executive function, memory, attention, intellectual function, and motor speed were assessed in subsamples of 28 manic and 51 schizophrenic patients.

Results: Eight factors with eigen values greater than unity captured 67% of the variance (KMO measure of sampling adequacy =.78): Negative Symptoms; Psychosis; Anger; Depression; Disorganization; Anxiety; Preoccupation; and Cognitive Impairment. There were few associations between neuropsychological variables and most factor scores. However, Cognitive Impairment, with nontrivial loadings for Disorientation, Difficulty in Abstract Thinking, and Conceptual Disorganization, predicted poor performance on Finger Tapping, Semantic Fluency, Trails B, the Wisconsin Card Sorting Test, and WAIS-R Vocabulary, Digit Span, Block Design, and Digit Symbol. Diagnostic groups did not differ in neuropsychological performance or Cognitive Impairment factor scores.

Conclusions: Our results have similarities with previous factor analytic studies in schizophrenic and mood-disordered patients and suggest that relations between the Cognitive Impairment factor and neuropsychological dysfunction may be independent of diagnosis.

NR272 Tuesday, May 18, 12 noon-2:00 p.m.
Gender Differences in Schizophrenia: The Spanish Psicost Study

Susana Araya, CSM Gava, San Juan De Dios, Sarria 13-15, Gava 08850, Spain; Susana Ochoa, B.Sc., Josep Haro, M.D., Psicost Group

Summary:

Objective: To describe gender differences in sociodemographic characteristics, clinical and functioning state in schizophrenic outpatients.

Method: We selected a representative sample of patients with schizophrenia among the people who receive psychiatric treatment in four catchment areas of different regions of Spain (Barcelona; Granada Sur; Navarra; and Madrid). Patients were evaluated with a sociodemographic questionnaire, the PANSS, the GAF scale and the WHO-DAS scale. A total of 346 patients meeting DSM-IV criteria for schizophrenia were included.

Results: One-hundred and eight patients (31%) were females and 238 (69%) were males. The mean age was 40 years for the females and 37 years for the males ($p<0.05$). Twenty-four percent of the females and 12% of the males were married ($p<0.01$). No differences were found on age of onset. The GAF score was higher in females than in males ($p<0.01$). The DAS score was higher (poor functioning) in males ($p<0.005$). Number of days in a hospital was higher in males ($p<0.005$). No differences were found in the PANSS score and in the schizophrenia subtype.

Conclusions: Although no psychopathological differences were found and age of onset was similar, females had a better global functioning.

NR273 Tuesday, May 18, 12 noon-2:00 p.m.
Clozapine Treatment of Comorbid Substance Abuse in Patients with Schizophrenia

Meghan McCarthy, Community Integration, 183 West 14th Street, Erie PA 16501; Penelope Chapman, M.D., Craig G. Richman, M.D., Bryan Yamamoto, Ph.D., Peter F. Buckley, M.D.

Summary:

Comorbid substance abuse (SA) in patients with schizophrenia is a common and substantial clinical dilemma. There is no evidence that typical antipsychotics have any impact upon SA in these patients; moreover, these patients are more likely than nonabusers to show a poorer treatment response with typical antipsychotics. There is preliminary evidence that clozapine is efficacious in patients with comorbid SA, with some data suggesting of this effect occurs partly by attenuating drug craving. The present study was undertaken to extend this work and examine in a prospective cohort the comparative efficacy of clozapine in schizophrenic patients with and without active SA. Thus far, 55 patients with schizophrenia have enrolled in a 12-week trial of clozapine, titrated to a dose of 500mg daily. Patients are assessed at baseline, 6 weeks and 12 weeks for psychopathology, functional outcome, craving and drug use, medication tolerability, and plasma homovanillic acid and 5-hydroxyindoleacetic acid. Among 30 SA patients (mean age: 37+/- 8; 21 male, 9 female), 56.7% have completed, (10% are active) and 33.3% have withdrawn during the clinical trial. Corresponding completion and withdrawal rates for 25 nonabusing schizophrenic patients (mean age: 37 +/- 11; 13 male, 12 female) are 64% and 24% respectively (12% are active). The SA and control groups were similar on baseline PANSS (103 +/-20 v's 109 +/-23) and GAF (43 +/-10 v's 41 +/-8) scores. 12 week PANSS scores were 90 +/-17 (SA) v's 88 +/- 20 (control); GAF scores measured 47+/-9 vs. 48 +/- 9. 70% of SA patients completing the 12-week trial of clozapine had a cessation or reduction in substance abuse.

NR274 Tuesday, May 18, 12 noon-2:00 p.m.
Chronically Hospitalized Inpatients with Schizophrenia: Psychopathologic, Cognitive and Functional Assessments

John W. Kasckow, M.D., Department of Psychiatry, U Cincinnati College of Med, 231 Bethesda Ave ML 559, Cincinnati OH 45267-0559; Brendan T. Carroll, M.D., Enid Rockwell, M.D., Thomas L. Patterson, Ph.D., James J. Mulchahey, Ph.D., Stephen M. Strakowski, M.D., Dilip V. Jeste, M.D.

Summary:

Objective: Determining whether psychopathological, cognitive and functional assessments in chronically hospitalized schizophrenic inpatients age ≥ 45 differ from matched outpatients.

Methods: Inpatients were hospitalized at least 6 months in an inpatient unit and met DSM-IV criteria for schizophrenia or schizoaffective disorder. Assessments included the PANSS, Mini-Mental Status Exam (MMSE) and Quality of Well Being (QWB) Scale. Scores were compared to outpatients matched by diagnosis, age and education using t-tests.

Results: The mean age of onset of illness in the inpatients was lower: $x \pm SD = 24.4 \pm 5.7$ vs. 29.6 ± 12.0; $p = 0.0042$ ($n = 51$). Total PANSS scores of the inpatients were higher than that of the outpatients (100.0 ± 26.6 vs. 63.1 ± 16.4; $p < 0.0001$; $n = 54$) as were each of the subscales. QWB scores in the inpatients were 0.52 ± 0.08 vs. 0.57 ± 0.12 in the outpatients ($p = 0.01$; $n = 51$)

and MMSE scores in the inpatients were 21.2 ± 7.5 vs. 26.7 ± 3.0 in the outpatients ($p < 0.0001$; $n = 54$).

Conclusions: Earlier age of onset of schizophrenia appears to lead to greater disability in later life. In addition, chronically hospitalized inpatients with schizophrenia exhibit higher levels of psychopathology, greater cognitive impairment and lower quality of life indices.

NR275 Tuesday, May 18, 12 noon-2:00 p.m.
Are There Cognitive Patterns in Schizophrenia?

Marcia Rozenthal, Ph.D., Department of Psychiatry, UFRJ, Avenida Copacabana 749-503, Rio de Janeiro RJ 22050-000, Brazil; Jerson Laks, M.D., Nelson Maculan, Ph.D., Eliasz Engelhardt, M.D.

Summary:

Objective: The present study aims to find and analyze cognitive patterns in schizophrenic patients for further correlation to psychopathological as well as to data from neuroscience research;

Method: A sample of 53 schizophrenic patients were selected through SCID-DSM-IV interview and classified according to psychopathological findings as positive, negative and disorganized. The severity of these dimensions throughout the course of the disease were considered. Neuropsychological assessment parameters were selected highlighting frontal and temporal cortex and circuits, as well as verbal and visual processing differences. An artificial neural network ART was used to perform non-parametric and non-linear statistics in order to define and compare clusters.

Results: The artificial neural network identified a stable cluster (I) which shows a diffuse frontal cortex dysfunction with disorganized and negative symptomatology. Another cluster (II) defined was not so stable and showed marked variation with the number of clusters chosen, pointing to a continuum of the neuropsychological findings. Although the same frontal cortex dysfunction was suggested, a higher visual processing capacity was observed suggesting a dominant hemisphere disfunction. In contrast to the findings in cluster I the positive symptoms were predominant over the negative and disorganized ones.

Conclusions: Neuropsychological data are stable and psychopathological symptoms change over time. Therefore the former can better describe the course of the disease, are more reliable to correlate with neurofunctional exams and may help to plan cognitive rehabilitation.

NR276 Tuesday, May 18, 12 noon-2:00 p.m.
What Is the Schizophrenia Patients' Opinion on Information They Have About Their Disease?

Maurice Ferreri, M.D., Department of Psychiatry, Chu Saint Antoine, 184 Rue Du FBG St Antoine, Paris 75012, France; Frederic Rouillon, M.D., Philippe Nuss, M.D., Nadine Bazin, M.D., Soraya Farah, M.D., Daniel Gerard, M.D.

Summary:

Background: Improved compliance with antipsychotic medication is a major issue in schizophrenic management. For this purpose educational programs have been used, but little or no information has been gathered or published concerning schizophrenic patients' opinion on information they have about their disease.

Method: Thus we conducted a survey in concert with 69 psychiatrists from the French psychiatric health service. From this cross sectional survey we assessed 324 outpatients with schizophrenia (DSM-IV). Patients completed a questionnaire which assessed their level of information on mental illness and treatment.

Results: Preliminary results indicate less than half of the patients (45%) felt ill, only 45% thought they knew their illness well or very well, and 40% considered that they had not been given sufficient information. Most of the patients (80%) were persuaded that their treatment was useful, surprisingly 92% reported taking their medication regularly. However 25% of patients were not completely satisfied with their treatment. Most patients think that a high level of information about their illness (74%) and treatment (77%) help them to cope better with their schizophrenia,

Conclusion: This survey underlines that mental health consumers' opinions can be obtained even in the field of schizophrenia, and argues in favour of further such investigations.

This research is supported by Synthelab.

NR277 Tuesday, May 18, 12 noon-2:00 p.m.
Neurodevelopment of Schizophrenia: A Possible Role of Nerve Growth Factor

Professor Giuseppe Bersani, Lasapienza University, 3rd Psychiatric Clinic, Via Del Corallo N25, Rome 00186, Italy; Dr. Angela Iannitelli, Dr. Francesco Angelucci, Dr. Luigi Aloe

Summary:

Recent studies on alteration in cellular migration have focused the attention on the possible role of neurotrophins in the origin of schizophrenia, since these peptides are involved in neuronal growth and differentation in the central nervous system during both development *and* the adult stage. We have more recently observed that haloperidol-treated schizophrenic patients show a lower nerve growth factor (NGF) plasma levels. Moreover, the hypothesis that neurotrophins might be implicated In the pathogenesis of schizophrenia is suggested by recent evidence showing at neurotrophin-3 that gene polymorphism is associated with this disorder.

We now report that 26 informed male neuroleptic-free schizophrenic inpatients (mean age=29.92±8.10) compared with 29 healthy male controls (mean age=28.33±9.77) show significantly lower mean NGF plasma levels ($p=.023$); while in the controls, there was a significant correlation with age ($p=.03$), no correlation was observed in the group of schizophrenic patients ($p=.55$).

These findings suggest that NGF could play an important role in the etiopathogenesis of schizophrenia probably throughout an action on the limbic dopaminergic system function during the process of neurodevelopment and the progress of the disease. Further basic and clinical research is aimed at elucidating this aspect.

NR278 Tuesday, May 18, 12 noon-2:00 p.m.
Variety of Short-Term Course in First-Episode of Psychosis: The Impact of Separating Schizophrenia from Psychotic Mania

Juergen Hoeffler, M.D., Department of Psychiatry, Hans-Prinzhorn Clinic, Froensberger Street 71, Hemer 58657, Germany; Peter Braunig, M.D.

Summary:

Objective: Treatment strategies have to be adapted to diagnoses, course and severity of the illness in order to achieve best outcomes and an optimal distribution of resources. However,

diagnoses may be uncertain in first-episode patients. From a clinical point of view, especially the distinction between mania with psychotic features and schizophrenia can be difficult at the very onset of the illness. This investigation evaluates different outcomes of first-episode psychosis patients in relation to different underlying diagnoses.

Method: 77 patients with first-episode psychosis presenting Schneiderian first-rank symptoms were diagnosed according to ICD 10, resulting in 33 patients with schizophrenia (13 fem.; 20 male; mean age 26.9 a) and 25 patients suffering from mania with psychotic features (18 fem; 8 male; mean age 33 a). We assessed PANSS, GAF, DAS, Strauss-Carpenter-Scale, Vaillant-Scale, and different sociodemographic parameter at index admission and at a follow-up investigation two years (mean) later.

Results: At first episode both patient groups were comparable with regard to severity of psychosis, education level, or premorbid social class. At follow-up schizophrenic patients —but not the group with psychotic— mania-showed marked social impairment and psychopathology.

Conclusions: In order to distribute patients adequately to their needs in treatment programs, it is important to achieve an exact differential diagnosis between schizophrenia and psychotic mania even at the first episode of the illness.

NR279 Tuesday, May 18, 12 noon-2:00 p.m.
Depressive Signs and Symptoms in Schizophrenia: A Prospective Blinded Trial of Olanzapine and Haloperidol

Scott W. Andersen, M.S., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Gary D. Tollefson, M.D., Todd Sanger, Ph.D.

Summary:

Background: Depressive signs and symptoms of schizophrenia, whether part of the disease or related to conventional antipsychotic pharmacology, are common and are associated with increased morbidity and mortality. Novel antipsychotic candidates introduce new pharmacological avenues, which may differentially impact schizophrenic signs and symptoms, including depression.

Methods: In this six-week, double-blind trial, 1996 patients with schizophrenia or a related diagnosis were randomized to the novel antipsychotic olanzapine (5-20 mg/day) or the conventional D2 antagonist haloperidol (5-20 mg/day). Patients were evaluated with the Positive and Negative Symptom Scale (PANSS), the Montgomery-Asberg, Depression Rating Scale (MADRS), and Simpson-Angus Scale.

Results: At least moderate depressive signs and symptoms (MADRS ≥16) were seen in slightly over half of the patients. Both treatments were associated with acute baseline-to-endpoint MADRS improvement. Olanzapine-associated improvements were statistically significantly superior to those observed with haloperidol (p=.001), and the olanzapine response rate (≥50% MADRS improvement after at least three weeks of acute treatment) was also significantly higher (p=.001). Path analysis demonstrated that the direct effect on mood with olanzapine (57%) was significantly greater than with haloperidol (p<.001).

Conclusion: Depressive signs and symptoms in schizophrenia are treatment responsive. The pleotrophic pharmacology of olanzapine, through one or more non-D2 mediated pathways, likely contributes to its superior treatment effect. Better control of mood disorders accompanying schizophrenia holds the possibility for improved patient outcomes.

NR280 Tuesday, May 18, 12 noon-2:00 p.m.
Olanzapine Versus Risperidone Versus Haloperidol in Early Illness Schizophrenia

Stacy R. David, Ph.D., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center, Indianapolis IN 46285; Scot Purdon, Ph.D., Barry D.W. Jones, M.D., Emmanuel Stip, M.D., Alain Labelle, M.D., Alan F. Breier, M.D., Gary D. Tollefson, M.D.

Summary:

It is hypothesized that novel pharmacotherapeutic treatments may have the potential to diminish the severe cognitive dysfunction in stable patients early in the course of schizophrenia. In this multicenter, double-blind, parallel treatment study, 65 stable patients in the first five years of illness with PANSS scores less than 90 were randomly assigned to one of three treatment groups: olanzapine in the dose range of 5mg to 20mg per day, risperidone in the dose range of 4mg to 10mg per day, or haloperidol in the dose range of 5mg to 20mg per day. After a one-month stabilization period and a one-week washout/screening period, treatment was initiated and patients were monitored for 54 weeks. After the first week of treatment, the dose of medication and the use of adjunctive therapy was determined by the attending physician. The general cognitive index revealed a significantly greater benefit of olanzapine relative to haloperidol and risperidone. but no significant difference between risperidone and haloperidol. The improvement to olanzapine was apparent after six weeks and sustained after 30 weeks and 54 weeks of treatment. Secondary analysis of each cognitive domain revealed a significant improvement in attention with haloperidol, verbal skills and new learning with risperidone, and motor, attention, nonverbal, executive, and new learning skills with olanzapine. There were no significant correlations between the cognitive change and either clinical or motor syndrome scores. The results suggest considerable promise for the future treatment of the severe cognitive impairment in schizophrenia, with implications for the educational, vocational, and social outcome associated with schizophrenia.

NR281 Tuesday, May 18, 12 noon-2:00 P.M.
A Longitudinal Study of Cognitive and Functional Decline in Patients with Life-Long Schizophrenia

Joseph I. Friedman, M.D., Department of Psychiatry, Mt. Sinai Hospital, Box 1230, One Gustave Levy Pl, New York NY 10029; Philip D. Harvey, Ph.D., David N. Adler, M.D., Michael Parrella, Ph.D., Kenneth L. Davis, M.D., Leonard White, Ph.D.

Summary:

Recent research has suggested that poor outcome patients with schizophrenia manifest cognitive and functional decline, as well as showing signs of progressive enlargement of their cerebral ventricles. This study examined a sample of poor outcome patients with schizophrenia (n=120) who were rated with a comprehensive assessment of clinical symptoms (PANSS), cognitive functioning, and adaptive life skills (rated with the ADAS-L Self Care scale). These patients were examined four times in a five-year period and the differential rates of change across these aspects of the illness was examined. There was an average decline of 3.5 points on the, MMSE over the full followup period, from an average baseline score of 14 to an endpoint score of 10.5. Declines were also seen on measures of memory, praxic skills, and verbal skills. Similar levels of decline were seen for functional status, with an increase of two points on the ADAS-L self-care scale. Negative symptoms showed signs of worsening

as well, with an increase from a baseline score of 29 to an endpoint score of 31. In contrast, positive symptom severity scores were essentially identical over the follow-up period (baseline=20.6, endpoint 20.7). The proportionate increase in cognitive impairment was greater than that for negative symptoms, although worsening in negative, cognitive, and functional domains was correlated. Degenerative conditions such as Alzheimer's disease lead to much greater declines, on average, in cognitive functioning over a follow-up period of this length. Later studies will need to identify the neurobiological factors that are responsible for this pattern of cognitive decline. Additional longitudinal symptom, cognitive, and functional data for nongeriatric poor outcome patients is presented for comparison.

NR282 Tuesday, May 18, 12 noon-2:00 p.m.
Ziprasidone Treatment of an Acute Exacerbation of Schizoaffective Disorder: An Analysis of Patients

Paul E. Keck, Jr., M.D., Biological Psychiatry, University of Cincinnati, 231 Bethesda Ave/P0 Box 670559, Cincinnati OH 45267; Karen R. Reeves, M.D., Edmund P. Harrigan, M.D.

Summary:

Objective: To investigate ziprasidone in the treatment of an acute exacerbation of schizoaffective disorder.

Methods: Data from subsets of patients with schizoaffective disorder from two double-blind, placebo-controlled parallel-group studies were analyzed. Patients received either fixed oral doses of ziprasidone 40 mg/day (n=16) or 120 mg/day (n=22) for four weeks or ziprasidone 80 mg/day (n=18), or 160 mg/day (n=25) for six weeks, or placebo (n=34) for four or six weeks.

Results: Ziprasidone 40-160 mg/day produced dose-related reductions in BPRS total, BPRS core, BPRS manic items, and CGI-S scores ($p \leq 0.01$). Ziprasidone 160 mg/day significantly reduced mean BPRS total, BPRS core, BPRS manic, and CGI-S scores ($P<0.05$) compared with placebo. Ziprasidone 120 mg/day significantly reduced mean CGI-S score compared with placebo ($P<0.05$). Dose-related improvements in mean BPRS depressive items and MADRS total scores were greater with ziprasidone 40-160 mg/day than with placebo. The total incidence of adverse events with ziprasidone was similar to placebo and no adverse event was dose related. Movement disorders were either absent or very infrequent in a 11 treatment groups. No treatment-emergent mania was reported in any ziprasidone treatment group.

Conclusions: Ziprasidone appears to reduce overall psychopathology as well as depressive and manic symptoms in an acute exacerbation of schizoaffective disorder and to be very well tolerated. Therefore, further study in schizoaffective disorder, as well as other disorders such as acute mania and bipolar disorder is warranted.

NR283 Tuesday, May 18, 12 noon-2:00 p.m.
High-Velocity Visual Processing Deficits Diminish Schizophrenia Patients' Ability to Recognize Objects

Barry D. Schwartz, Ph.D., Department of Psychiatry, Tulane Univ/Tidewater Building, 1440 Canal Avenue, New Orleans LA 70112; Bradley A. Maron, B.A., William J. Evans, Daniel K. Winstead, M.D.

Summary:

A growing number of studies have applied a transient (magnocellular) or sustained (parvocellular) explanation to account for schizophrenics' deficient processing of briefly presented, moving, visual stimuli. Although the preponderance of findings offers support for transient deficits, a need for more specific depiction of the deficit remains. The present study evaluated normal controls and schizophrenic patients, recruited from inpatient and outpatient settings. A motion-defined letter task was used owing to its sensitivity to transient activation. Twenty-three schizophrenics and 16 normal controls were tested on eight dot velocity levels, ranging from 88 min/sec to .69 min/sec. A repeated measures ANOVA indicated that schizophrenics' performance was significantly poorer than their normal counterparts on the three fastest dot velocity conditions (88 min/sec speed, $p<.0001$,44 min/sec, $p<.00001$, and 22 min/sec. $p<.00003$), but performancedid not differ on the five slower dot velocity conditions. A regression analysis revealed that the dosage of medication was positively associated with performance on three middle range dot velocity conditions (11, min/sec .1 $(1,22)=6.99$; $p<.025$;5.5 min/sec, $F(2,20)=.3.79$; $p=.05$, and 2.25 min/sec $F(2,20)=7.37$; $p< 4.005$). The findings afford support for an early information processing deficit in schizophrenics and for a transient channel deficiency.

NR284 Tuesday, May 18, 12 noon-2:00 p.m.
Schizophrenia Care and Assessment Program: Baseline Characteristics

Patricia Russo, Ph.D., The Medstat Group, 4401 Connecticut Avenue NW 400, Washington DC 20008; Lolita Burrell, Ph.D., Joseph Vasey, Ph.D., Riad Dirani, B.S., Bryan M. Johnstone, Ph.D.

Summary:

Objective: To establish a baseline assessment of participants in the SCAP study, a prospective, naturalistic research initiative implementing a comprehensive effectiveness research infrastructure in six large systems of care in the U.S.

Method: Baseline data from clinical, assessment, self-report, and medical record abstraction are used (n=562). Disease-specific, functional, quality of life, pharmacotherapy patterns, and inpatient and outpatient utilization measures are evaluated. Descriptive and contingency analyses are conducted and gender and cohort differences are examined.

Results: Age of disease onset is later for women than men. Findings from the positive symptom scale, and the thought disturbance and activation scales indicated greater symptom severity among men. Serious impairment in functioning was noted and women exhibited a higher level of functioning than men. Higher scores on the AIMS scale were observed for men. Twenty percent of participants had an inpatient stay and 89% had at least one psychotherapy visit. Inpatients exhibited higher depression scores than outpatients and outpatients experienced higher scores on the AIMS scale than inpatients. Over half of the participants received an atypical antipsychotic as part of their treatment regimen.

Conclusions: The SCAP data reflect schizophrenia care in real world settings across the U.S. Establishment of a baseline in this prospective research initiative provides a framework for the assessment of a broad range of outcomes over time.

NR285 Tuesday, May 18, 12 noon-2:00 p.m.
Volume Loss in Thalamic Nuclei in Schizophrenia

William M. Byne, M.D., Department of Psychiatry, Mt. Sinai Medical Center, One Gustave Levy P1/Box 1230, New York NY 10029; Monte S. Buchsbaum, M.D., Liesl B. Jones, Ph.D., Vahram Haroutunian, Ph.D., Kenneth L. Davis, M.D.

Summary:

Objective: To determine which thalamic subdivisions are affected by schizophrenia.

Method: The entire thalalmus was dissected from 22 fixed, right-sided hemispheres of geriatric subjects (14 DSM IV-defined schizophrenics, 8 controls). Blocks were sectioned at 80 microns in the coronal plane. Every tenth thionin-stained section was examined on a computer monitor with the aid of a Bioquant TCW image analysis system. The perimeters of the total thalamus and 12 subdivisions were traced in all sections in which they appeared in order to calculate volumes.

Results: Total thalamic volume did not differ between schizophrenics and nonschizophrenics. Four schizophrenics and three controls met histopathologic criteria for Alzheimer's disease (AD). For the entire sample, the volume of the mediodorsal nucleus (MDN), its magnocellular division, and tilt pulvinar (P) were significantly reduced in schizophrenics (p=.03, p=.0 1, p=.04, respectively). When subjects with AD were excluded MDN and P remained smaller in schizophrenics (p=.04, p=.007, respectively); however, the parvocellular (p=.04) rather than the magnocellular (p=.15) division of MDN was significantly reduced. No other thalamic nuclei showed significant volume loss.

Conclusions: Schizophrenia is associated with volume loss in MDN and P. This volume loss may be etiologically related to or influenced by pathology in their respective cortical targets.

Supported by a NARSAD Young Investigator Award and NIMH 55989 to WB.

NR286 Tuesday, May 18, 12 noon-2:00 p.m.

Neurosteroids and Endozepines in Psychiatric Disorders

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Summary:

The GABA and glutamate neurotransmitter systems are implicated in schizophrenia and other psychiatric disorders. The GABAA and NMDA glutamate receptors contain allosteric modulatory sites and among their putative endogeneous ligands are endozepines and neurosteroids. Endozepines (END) are small molecular weight, nonpeptide substances that act as positive allosteric modulators of the action of GABA at GABAA receptors. Neurosteroids include Allopregnanolone (ALLO) that binds with high affinity to GABAA receptors and potently facilitates channel gating by GABA, and dehydroepiandrosterone (DHEA) that positively modulates the action of glutamate at NMDA receptors. We have analyzed cerebrospinal fluid (CSF) levels of the above mentioned endogenous receptor modulators in 45 psychiatric inpatients under medication-free conditions (16 schizophrenia, 9 schizoaffective, 13 major depression, 5 mania). A significant inverse relationship was noted in the schizophrenic/schizoaffective subpopulation, between END levels and the BPRS total score (r=0.57, n=25. p<0.003) as well as BPRS positive symptoms (r=-0.55; n=25; p<0.005). There was a significant positive correlation between CSF END and ALLO levels in those patients with detectable END. Antipsychotic treatment resulted in an increase in DHEA (510% to 2600% range; t=5.8; df=16; p<0.0001). This DHEA increase was greater in female patients, and did not correlate with changes in END, ALLO, or progesterone.

NR287 Tuesday, May 18, 12 noon-2:00 p.m.

Acute Changes in CSF 5-HIAA Following Oral Paroxetine Challenge in Healthy Humans

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Summary:

Background: Preclinical studies have employed intrarcerebral microdialysis techniques to explore changes in regional concentrations of 5-HT and 5-HIAA following administration of various antidepressant medications. Results obtained with selective 5-HT reuptake inhibitors (SSRIs) have consistently shown large increases in extracellular 5-HT concentrations, and corresponding decreases in 5-HIAA, in the vicinity of cell bodies and dendrites of 5-HT neurons in the midbrain raphe nuclei. We used a new "atraumatic" lumbar puncture (LP) procedure to collect serial CSF samples before and after a single oral dose of the SSRI paroxetine (PAR) in healthy adult humans in a double-blind, placebo-controlled fashion. A pilot study (n=17) with this method revealed a mean 45% increase in CSF 5-HIAA following paroxetine.

Methods: Eight healthy, drug-free volunteers (5 male, 3 female) each completed two identical testing days, with random assignment of active drug (PAR 40 mg) or placebo at 10 a.m. Lumbar CSF samples were collected under strictly controlled and standardized conditions one hour before and three hours after the drug (9 a.m. and 1 p.m.), using a Sprotte 25-ga needle. Plasma samples were obtained immediately before and after each LP.

Results: CSF 5-HIAA did not change significantly following placebo (t=0.78, p=0.462). However, CSF 5-HIAA concentrations increased significantly following active PAR (t=3.41, p=0.011). The within-subjects differences between these two conditions confirmed a significant PAR-induced increase (about 27%) in CSF 5-HIAA t=2.79, p=0.027). A significant post-LP increase in plasma cortisol was seen at the 1p.m. procedure on the day of active drug (t=4.52, P=0.003).

Conclusion: These are the first data showing acute SSRI-induced changes in CSF 5-HT metabolite concentrations in humans. The results obtained with our placebo condition indicate the increase in CSF 5 HIAA is not secondary to nonspecific stress accompanying the LP procedure itself. Serotonergic input may enhance the plasma cortisol response to stress of the LP procedure as seen at some of our time points. Further studies in patients with depression may help elucidate the pathophysiology of affective disorders.

This work was supported in part by Pfizer, Inc. and NARSAD funding.

NR288 Tuesday, May 18, 12 noon-2:00 p.m.

Lithium and Valproate Present Valinomycin Cell Death

Rif S. El-Mallakh, M.D., Department of Psychiatry, University of Louisville, School of Medicine, Louisville KY 40292; Rena Li, M.D.

Summary:

Both lithium and valproate have been used in the treatment of manic-depressive illness with very limited understanding of their therapeutic mechanism of action. Recent literature suggests that the inhibition of potassium channels may be a common pathway

of many antidepressant agents. To determine the relationship between lithium and valproate treatment and potassium efflux, we first treated SH-SY5Y human neuroblastoma cells with valinomycin (2-100uM), lithium (0.5-3mM), or valproate (0.01-0.2mg/ml) for 24-48 hours. Valinomycin, a potassium ionophore that is well known to increase potassium efflux, induced apoptotic changes in nuclei at a low dosage and shrunken cell bodies at a high dosage. Cells treated with lithium or valproate alone had no morphological changes. When the SH-SY5Y cells were pretreated with lithium or valproate and then exposed to valinomycin, the high-dose valinomycin-induced apoptotic changes were significantly reduced or prevented. However, the low-dose valinomycin-induced nuclei changes were only prevented by lithium treatment. Our results suggest that lithium and valproate share a common mechanism that appears to be related to blocking cellular consequences produced by potassium efflux.

NR289 Tuesday, May 18, 12 noon-2:00 p.m.
Depressive Symptoms and Low Estradiol Levels

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Summary:

Objectives: Fluctuations in the sex hormones are associated with mood dysregulation. Estrogen is the major ovarian hormone associated with mood changes. Women treated with gonadotropin-releasing hormone (GnRH) agonist for endometriosis provide a unique opportunity to investigate the effects of low estradiol levels on mood.

Study Design: Seventeen female patients ranging from 24 to 40 years of age with laparoscopically diagnosed endometriosis were given the Hamilton Rating Scale for Depression (HRSD-21) at monthly intervals while undergoing GnRH agonist therapy (Lupron 3.75 mg IM depot). All participants were screened for current psychiatric disorders and had an initial HRSD-2.1 of <10.

Results: While on GnRH agonists, patients experienced a significant increase in depressive mood symptoms ($\underline{F}$ [3,48] 94.5, p< 0.00); (RaoR [3,14] = 13.4, p<0.00) during the same time period in which they experienced a significant decrease in estradiol levels ($\underline{F}$ [3,48] = 12.8, p<0.00) (RaoR[3,14] = 13.4, p<0.00). The increase in depressive mood symptoms and the decrease in estrogen levels of women treated with GnRH agonist appear constant across time. Post hoc comparisons reveal that the significant difference was found between baseline and month 1 (28 days later).

Conclusions: Women treated with GnRH agonists have decreased estradiol levels and an increase in depressive symptoms as measured by the HRSD-21. The increase in mood symptoms while on GnRH agonists is postulated to be associated with the decline in estradiol levels.

This work was support in part by Pfizer Inc.

NR290 Tuesday, May 18, 12 noon-2:00 p.m.
Signaling Pathway of Lipopolysaccharide-Induced Generation of Nitric Oxide in Rat Primary Astrocytes

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Summary:

Nitric oxide(NO) plays an important role in pathophysiology of stroke and various neurodegenerative diseases. This study is designed to elucidate the mechanisms by which Signaling pathway of LPS-stimulated NO generation in rat primary astrocytes may be mediated by MAP kinase cascades and transcriptional activation of NF-kB.

Treatment of cultured rat primary neonatal astrocytes with LPS results in the generation of NO as well as increase in the expression of inducible nitric oxide synthase (iNOS). LPS-induced NO generation is inhibited by the addition of inhibitors of MEK and JNK1/SAPK, PD 98059, and curcumin. LPS also increases the phosphotransferase activity of Erk as well as JNK1 and increases the phosphorylation of p38. Inhibition of Ras results in decrease of LPS-induced NO generation in rat primary astrocytes. cAMP decreases the LPS-induced NO generation via inhibition of JNK1. Furthermore, LPS activates transcriptional activator, NF-kB, which is inhibited by the addition of inhibitors of MEK and JNK.

These data suggest that MAP kinases, especially Erk and JNK1, may mediate the signaling cascade of LPS-induced NO generation in rat primary astrocytes via activation of transcriptional factor NF-kB.

NR291 Tuesday, May 18, 12 noon-2:00 p.m.
Prospective Study of Psychosis in Parkinson's Disease

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Summary:

Objective: Although psychotic symptoms occur frequently in patients with Parkinson's disease (PD), there has been little systematic study of this psychiatric symptom. In this study, PD patients were prospectively examined for presence of psychosis and associated factors.

Method: The authors examined 102 consecutive patients diagnosed with strictly defined idiopathic PD for presence of psychosis and assessed for visual acuity cognition as measured by the TICS, Geriatric Depression Scale score, ADL score, neurologic disease severity as measured by the UPDRS, and other demographic and clinical variables.

Results: Of 102 patients, 29.4% (N=30) had psychotic symptoms, four (3.9%) were psychotic due to delirium and were excluded from further analysis. Of the 98 remaining patients, 26.5% (N=26) had psychosis, all with visual hallucinations. Among these, one patient also had delusions, two had auditory hallucinations, and one had gustatory hallucinations. Visual hallucinations were significantly correlated with worse visual acuity, lower cognitive score, higher depression score, worse disease severity as measured by the UPDRS score, specifically the motor and bradykinesia subscales, and worse ADL score. Hallucinations were not associated with history of psychiatric disease or dose or duration of L-dopa or duration of illness.

Conclusions: Visual hallucinations are common symptoms in PD. Although higher doses of L-dopa are known to be clinically related to hallucination in some patients, our results indicate that it is the underlying characteristics of patients (disease severity, dementia, depression, worse visual acuity) that predispose to visual hallucinations rather than simply a medication effect.

NR292 Tuesday, May 18, 12 noon-2:00 p.m.
Donepezil in Huntington's Disease

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Hospital, 11100 Euclid Avenue, Cleveland OH 44120-7908; Heather M. Greenaway, R.N.

Summary:

Introduction: Huntington's disease (HD) is an autosomal dominant neurodegenerative disorder. It is distinguished by caudate atrophy, choreoathetosis, psychiatric symptoms, and dementia. Impaired memory and concentration, lack of initiative and spontaneity, diminished ability to communicate, and decline in frontal-executive functioning and work performance are characteristics of HD-associated dementia. Postmortem examinations of brain tissue have demonstrated decreased levels of gamma-aminobutyric acid (GABA) and acetylcholine (ACh) in HD. Donepezil is an acetylcholinesterase inhibitor shown to enhance cholinergic transmission in Alzheimer's disease.

Objective: This study was intended to evaluate the efficacy of donepezil in the treatment of HD-associated dementia.

Method: Three patients with HD (genetically confirmed) and dementia were treated with open-label donepezil (dose range 5-10 mg a day) over a six-month period. Cognitive status was measured by the Mini-Mental State Examination (MMSE) on a monthly basis throughout the study period. Functional capacity was assessed by the Shoulson and Fahn Functional Disability Scale at baseline and endpoint.

Results: All three patients tolerated the treatments well and showed significant improvement in memory, cognition, and functional capacity.

Conclusion: Our data suggest that donepezil is a promising cognitive enhancer in the treatment of HD-associated dementia.

This study was funded partly by an unrestricted educational grant from Pfizer U.S. Pharmaceuticals.

NR293 Tuesday, May 18, 12 noon-2:00 p.m.
Pattern Reversal Visual Evoked Potentials Identify Psychiatric Patients with One Type of Biologically-Based Explosive Behavior

F. La Marr Heyrend, M.D., TVNC, 411 North Allumbaugh Street, Boise ID 83704-9210; Donald R. Bars, Ph.D., Dene Simpson, Ph.D., James C. Munger, Ph.D.

Summary:

Visual evoked potentials (VEP) were statistically analyzed to assess their effectiveness in predicting explosive behaviors in children and adolescents regardless of their diagnosis. The data set (N=326) consisted of a clinical population heavily weighted with intermittent explosive disorder type behaviors, which Pierre Tarriot (1997) defined as "inappropriate verbal, vocal, or motor activity not explained by apparent needs, confusion, medical condition, or social/ environmental disturbances." The presence of explosive behaviors was defined by reports from the legal system, schools, parents, health care workers, and during individual intake interviews.

Logistic regression indicated that explosive individuals were significantly more likely to produce high amplitude P 100 wave forms ($p < .0001$), and 46% of the individuals with explosive behaviors met our clinical criteria. The ambiguity in DSM-IV classification of explosive behaviors and the effects of medication will be discussed. The use of pattern/reversal visual evoked potential (PREP) studies empirically identifies a large subset of individuals who exhibit out-of-control explosive behaviors, permitting more accurate intervention and appropriate treatment strategies to be implemented.

NR294 Tuesday, May 18, 12 noon-2:00 p.m.
Clinical Characteristics of Nonepileptic Seizure Patients in an Epilepsy Monitoring Unit

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Summary:

Method: A retrospective record review of adult patients admitted to a university hospital epilepsy monitoring unit over a 15-month period who were found to have non-epileptic seizures was done. A total of 54 patients out of 90 (60%) admitted over that period had documented NES; 42 of their records were available for review. Of these patients 26 were female and 16 male. The mean age was 37 years for females and 34.2 years for males. Average length of monitoring was five days. The types of seizures that patients displayed varied, and nine patients had seizures induced by suggestion. Fifty-seven percent of patients had a psychiatric history — 58% depression, 21% bipolar disorder, 4% anxiety disorder, 8% substance abuse, 4% personality disorder, and 4% multiple diagnoses. Also, 21% of patients had history of emotional and physical abuse with one patient reporting sexual abuse.

Conclusion: 60% of patients in an epilepsy monitoring unit were found to have non-epileptic seizures. The type of seizure presentation varied, but suggestion was a useful diagnostic tool used by the psychiatric consultant. Of patients studied, 57% had a psychiatric history, with the majority diagnosed with an affective disorder. Our study included higher numbers of men and did not reveal the high incidence of abuse, particularly sexual, seen in previous studies.

NR295 Tuesday, May 18, 12 noon-2:00 p.m.
Psychosocial Evaluation of Epileptic Psychoses in Chile

Fernando Ivanovic-Zuvic, M.D., Department of Psychiatry, University of Chile, Avenida La Paz 1003, Santiago, Chile; Luis Alvarado, M.D., Ximena Candia, P.S., Maria Mendez, P.S., Ximena Ibarra, P.S., Jenny Alarcon, P.S., Anita Campos, P.S.

Summary:

The Washington Psychosocial Seizure Inventory (W.P.S.I) was used to assess psycosocial functioning in 29 epileptics with psychoses. The sample included 18 patients with clouded consciousness epileptic psychoses and 11 patients with clear consciousness epileptic psychoses.

The psychotic group was compared with 29 nonpsychotic epileptics. Both groups present similar characteristics in age, sex, type of seizure, age of initiation of seizures, and duration of seizures. Both groups belong to a low socioeconomic status.

Disturbances in several areas of psychosocial adjustment were observed in both groups. In the W.P.S.I. levels 3 and 4 correspond to clear difficulties in social adaptation. The most disturbed scales were financial status, and emotional, interpersonal and vocational adjustments. Overall psychosocial functioning was also effected. No disturbances were observed in two scales: family background, and medicine and medical management.

In each scale, both groups were statistically indistinguishable. These results show that, from the point of view of social adaptation, psychotic epileptics do not differ from nonpsychotic epileptic.

NR296 Tuesday, May 18, 12 noon-2:00 p.m.
The Use of Multiple Psychometric Indices of Malingering to Minimize the Possibility of Type 11 Error in Moderate-Severely Brain Injured Patients

Jack Spector, Ph.D., Division of Neurosurgery, Walter Reed Army Medical Ctr, Washington DC 20307; Deborah L. Warden, M.D., Alan G. Lewandowski, Ph.D., Andres M. Salazar, M.D.

Summary:

There are times when patients may misrepresent their neuropsychological problems. This is more common in persons seeking compensation following mild TBI. A number of approaches have been developed in response to the need to identify patients who may be exaggerating or feigning neuropsychological deficit. While some procedures have been specifically developed to detect malingered response sets, another strategy is to identify persons who perform in an inconsistent manner on traditional neuropsychological tests. In the present study, four such strategies were compared to examine the incidence of "malingered" patterns of test performance in patients with documented brain injuries. Baseline data from 136 moderate severely brain injured service members participating in the DVHIP TBI Rehabilitation Outcome Study were analyzed. Four previously validated strategies for assessing malingered response set were examined: WAIS-R Digit Span-Vocabulary difference, WMS-R General Memory Index-Attention Index difference, CVLT Recognition-Free Recall difference, and HRNB Seashore Rhythm Test errors. While 31% of moderate-severe TBI patients fell below accepted cut-offs using any one strategy and 8% of patients failed two, no patients failed three or four indices of malingering. In contrast, 83% of a group of 105 "presumptive" malingerers in an independently acquired sample of mildly head injured adults failed three or four indices, and all failed two or more. While discrete patterns of test performance associated with malingered response sets may occur in some genuinely brain injured persons, such patients rarely to never display such response patterns on multiple independent measures.

NR297 Tuesday, May 18, 12 noon-2:00 p.m.
Sertraline in the Treatment of Major Depression Following Mild Traumatic Brain Injury

Jesse R. Fann, M.D., Department of Psychiatry, University of Washington, Box 356560, Seattle WA 98195; Jay M. Uomoto, Ph.D., Wayne J. Katon, M.D.

Summary:

Objective: To determine the efficacy of sertraline in treating major depression and decreasing cognitive and functional impairment, anger and aggression, and postconcussive symptoms after mild traumatic brain injury (TBI).

Design: Eight-week, nonrandomized, single-blind, placebo run-in trial of sertraline.

Setting: University outpatient psychiatry clinic.

Subjects: Fifteen patients from the community diagnosed with major depression by the Diagnostic Interview Schedule between one and 24 months following a mild TBI.

Results: Sixteen patients enrolled and 15 completed the study. Mean 17-item HAM-D at enrollment was 25. Thirteen (87%) of those who completed the study had a drop in HAM-D of ≥ 50% and 10 (67%) achieved a HAM-D score of ≤ 7 by week 8 of sertraline. There was statistically significant improvement in all subscales of the Hopkins Symptom Checklist-90R; the Brief Anger and Aggression Questionnaire; the Neo neuroticism scale; the SF-36 Health Survey subscales of physical, emotional and social functioning, mental health, and vitality; the Sickness Impact Profile subscales of sleep and emotional, social, and work functioning; the Sheehan Disability Scale subscales of family, social, and work functioning; and postconcussive symptoms. There was also statistically significant improvement in neuropsychological tests of cognitive efficiency, psychomotor speed, mental flexibility, and verbal memory.

Conclusion: Sertraline is efficacious in treating major depression following mild TBI and significantly decreases cognitive and functional impairment, anger and aggression, and postconcussive symptoms.

Funded by an unrestricted educational grant from Pfizer Pharmaceuticals.

NR298 Tuesday, May 18, 12 noon-2:00 p.m.
How Mild is Mild Head Injury? A Neuropsychiatric Study

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Summary:

Objective: Although a Glasgow Coma Score (GCS) greater than or equal to 13 usually denotes a mild head injury (MHI), evidence from the neurosurgical literature suggests the group is not homogeneous. Thus patients with a GCS score of 13-14 differ from those with a score of 15 in frequency of neurosurgical intervention and outcome. Our objective was to investigate .whether these groups also differ with regards to neuropsychiatric sequelae.

Method: Fifly-one patients presenting with a GCS of 15 were compared with 25 patients with a GCS of 13-14 within two months of injury across an array of neuropsychiatric variables.

Results: Although the former had a longer period of posttraumatic amnesia and more CT abnormalities, psychometric differences (including indices of cognition, neurobehavioral disturbance, psychiatric distress, and psychosocial outcome) were not found. Patients with GCS of 15, however, were more likely to report headache, a finding that is consistent with studies comparing mild with moderate-to-severe head injury.

Conclusion: This study provides evidence that in the early stages of recovery from MHI, patients with a GCS ≥ 13 are largely homogeneous from a neuropsychiatric perspective.

NR299 Tuesday, May 18, 12 noon-2:00 p.m.
Longitudinal Neuropsychological Assessment of Decline and Incident of Dementia in Very Old Age

Friedel Reischies, Ph.D., Department of Psychiatry, FU Berlin, Eschenallee 3, 4, Berlin 14050, Germany; Rainer Schaub

Summary:

Objective: A prodromal stage of dementia syndrome has been consistently found and some studies described a decline in cognitive-mnestic test performance in old non-demented subjects. Because a nearly normal distribution of decline measures has been reported, a critical question is whether at least in a sample of very old subjects a bimodal distribution of decline measures can be demonstrated.

Method: Four-years prospective investigation of 210 subjects of the Berlin Aging Study, a population-based sample of commu-

nity dwelling and institutionalized persons with dementia diagnosis (DSM-III-R) by a psychiatrist.

Results: A mixture distribution analysis demonstrates bimodal distribution of decline measures. Additionally, in nondemented subjects (>85 yrs.) a mean decline in free recall, but not in MMSE, is found; i.e, subjects with decline from normal performance in free recall (ECR) to a pre-dementia or at-risk state are identified.

Conclusion: In old age a subpopulation with a pathological decline of cognitive-mnestic performance is identified, and a decline of memory performance is commonly found also in old non-demented subjects, which can be the focus of early diagnosis procedures.

NR300 Tuesday, May 18, 12 noon-2:00 p.m.
Dorsolateral Prefrontal Versus Medial Frontal Function in Psychotic Patients: A Neuropsychological Study

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Summary:

Introduction: There is a growing body of literature documenting the neuropsychological profile of schizophrenia and other psychotic disorders. Considerable evidence points to deficits in executive functions, such as concept formation, set switching, complex attention, and working memory, which are associated with the dorsolateral prefrontal cortex. Less is known about neuropsychological functions associated with the medial frontal cortex, such as planning and impulse control.

Methods: As part of an ongoing study of neuropsychological and personality function in several psychiatric patient groups, 27 psychotic psychiatric inpatients, diagnosed with either schizophrenia, schizoaffective disorders, or bipolar disorder with prominent psychotic features, were compared with 15 male outpatient pedophiles. This impulsive control group was also expected to show frontal impairment. Six inpatients with major depressive disorder were also assessed. Both three-group and two-group MANOVAs were performed.

Results: All patient groups performed significantly below published norms on several measures. Significant group differences were found on the three group comparisons only on verbal functions (WAIS-R Vocabulary and Information, COWA). In the two group comparison (psychotic patients vs. pedophiles), psychotic patients were impaired on verbal functions, complex attention (Trails A, Stroop), and set switching/visual concepts (Trails B, WCST) but not on impulse control (Gambling Task). Univariate comparisons demonstrated relative impairment on COWA, Stroop A, Trails A and B, and WCS Perseverative Errors. No significant correlations were found between neuropsychological performance in psychotic patients and thought disorder, delusional disorder, anxiety or dysthymia, as measured by the MCMI-2.

Conclusions: These results support previous findings of specific executive deficits in psychotic patients and further suggest that select medial frontal dysfunction may not be implicated in this patient population.

NR301 Tuesday, May 18, 12 noon-2:00 p.m.
Obsessive-Compulsive Behaviors in Adults with a Past History of Childhood Rheumatic Fever

Fernando R. Asbahr, M.D., Department of Psychiatry, University of Sao Paulo, Rua Dr Ovidio Pires de Campos, Sao Paulo SP 05403-010, Brazil; Andre B. Negrao, M.D., Renato T. Ramos, M.D., Roberto Sassi, M.D., Valentim Gentil, M.D.

Summary:

Objective: Obsessions and compulsions have been associated in children with Sydenham's chorea (SC), but not in those with rheumatic fever (RF) without chorea. In a group of adults who had RF in childhood, the presence of chorea was evaluated as a potential risk factor for the appearance of obsessive-compulsive symptomatology (OCS) and/or obsessive-compulsive disorder (OCD).

Method: Retrospective assessment of OCS, through the Y-BOCS, was performed in 14 outpatients from a rheumatic fever clinic, divided into two groups: with a history of chorea (5 patients, all female) and without history of chorea (9 patients, 5 female).

Results: The mean age at assessment and at onset of RF were 19.2 years (range:18-21) and 9.8 years (range:6-13), respectively. No difference (chi-square) was found between the groups.

Conclusions: Although the presence of SC and OCS/OCD in children is temporally related, there seems to be no relation between the presence of chorea and the development of OCS in adulthood.

NR302 Tuesday, May 18, 12 noon-2:00 p.m.
Growth Hormone Response to Baclofen in Manic Patients and Healthy Controls

I-Shin Shiah, M.D., Department of Psychiatry, University of British Columbia, 2255 Wesbrook Mall, Vancouver BC V6T 2A1, Canada; Lakshmi N. Yatham, M.B., Raymond W. Lam, M.D., Edwin M. Tam, M.D., Athanasios P. Zis, M.D.

Summary:

Objectives: To explore the role of $GABA_B$ receptor function in the pathophysiology of mania, we measured plasma growth hormone response to a challenge with a $GABA_B$ receptor agonist baclofen in manic patients.

Methods: We recruited ten manic patients and ten matched healthy controls for the study. After obtaining a blood sample for baseline GH levels, a single dose of 20 mg of baclofen was given orally to all the subjects and further blood samples were obtained every 30 minutes for three hours.

Results: We found that baclofen administration led to a significant increase in GH release both in manic patients and healthy controls, but the GH response to baclofen in manic patients was significantly higher when compared with healthy controls.

Conclusions: Our findings may suggest that hypothalamic $GABA_B$ receptor function, as measured by baclofen-induced GH release, is up-regulated in manic patients.

NR303 Tuesday, May 18, 12 noon-2:00 p.m.
Borna Disease Virus in Panic Disorder

Johann Windhaber, M.D., Department of Psychiatry, University of Vienna, Waehringer Guertel 18-20, Vienna A 1090, Austria; Karl Dantendorfer, M.D., Norbert Nowotny, Ph.D., Michaela Amering, M.D., Sibylle Herzog, Ph.D., Dagmar Maierhofer, M.D.

Summary:

Objective: Panic disorder (PD) is a frequently diagnosed psychiatric disease, for which abnormalities in the limbic system of the brain have been shown. Borna disease virus (BDV) is a

recently characterized neurotropic virus, which affects predominantly the limbic system of several animal species, causing an immune-mediated neurological disease. In human beings, BDV infection has been linked to various psychiatric disorders. The aim of this study was to investigate the seroprevalence of BDV infection in patients suffering from PD, compared with healthy controls.

Method: Serum of 110 PD patients and 106 controls was examined by an indirect immunofluorescence (IIF) assay for the presence of antibodies to BDV. Serum, which proved positive in the IIF assay, was by Western blot.

Results: 8.2% PD patients and 3.8% controls showed antibodies to BDV in the IIF assay. All IIF positive results could be confirmed by Western blot.

Conclusions: The higher prevalence of BDV antibodies in the group of PD patients gives some evidence that in certain subgroups of patients with PD, BDV infection may have had an etiological or cofactorial role in the genesis of this disease.

NR304 Tuesday, May 18, 12 noon-2:00 p.m.

Ipsapirone As a Serotonergic Probe in Personality Disorder Patients

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Summary:

Background: Alterations of the central serotonergic (5HT) function have been associated with several psychiatric disorders including depression, bipolar disorder, obsessive-compulsive disorder, and impulsive aggression. Ipsapirone (IPS) has been shown to be a useful probe of serotonin function in normal subjects; responses to IPS, a 5HT-1A agonist, that acts both pre- and post-synaptically, originally were shown to be blunted in unipolar depressed patients (Lesch et al, 1990) but the finding has not been replicated in a subsequent study (Meltzer & Maes, 1995), nor has a blunted response been shown to be associated with bipolar disorder (Shiah et al, 1998), obsessive-compulsive disorder (Lesch et al, 1991), seasonal affective disorder (Schartz et al, 1998). However, recently a blunted response to IPS has been associated with self-reported aggression (Moeller et al, 1998). In an effort to better define the serotonergic mechanisms that mediate depression and impulsivity, we recruited a group of personality disorder outpatients and normal controls in whom we obtained measures of depression, impulsivity, and aggression. Subjects were administered 20mg of IPS p.o. in a double-blind placebo-controlled fashion.

Results: We have studied 10 NC and 25 DSM-III-R personality disorder patients. In an interim analysis conducted on 10 NC subjects and nine personality disorder patients IPS significantly reduced temperature in all subjects ($F[1,21] = 13.3$, $p < .01$) and significantly increased cortisol levels ($F[1,22]=9.27$, $p<01$). There was no diagnosis by drug interaction for either of these measures. Moreover, the temperature response to IPS correlated negatively with the prolactin response to fenfluramine ($r=-.82$, $p <01$), and positively with the Barraft Impulsiveness scale (Risk Taking subscale: $r=0.86$, $p<01$). These results will be updated to include the effects of depression, impulsivity, and aggression in the total sample of personality disorder patients. We will also report on the association between ipsapirone and treatment response to venlafaxine as both target the 5HT-1A system.

NR305 Tuesday, May 18, 12 noon-2:00 p.m.

Improved Retention Designs for Addiction

David M. McDowell, M.D., Substance Abuse, Stars, 600 West 168th Street, 2nd Flr, New York NY 10032-1 Jami Rothenberg, Ph.D., Andrew Sia, B.A., Edward V. Nunes, M.D., Frances R. Levin, M.D.

Summary:

Retention of patients in clinical trials in general, and in clinical trials involving substance abusers in general, is an important issue. Several features incorporated into progressive trials involving similar substance abusing populations at our institution appear to have dramatically increased both compliance with treatment and reduced attrition. All studies have involved outpatients seeking treatment for cocaine dependence in an urban clinic setting. These have included a trial using imipramine, desipramine (ongoing), and a pharmaceutical industry sponsored trial. Dropout rates have improved from 46% in a previous study of imipramine, to 22% in a current study of desipramine being conducted, to 14% in the most recent, an industry sponsored trial.

The first trial involved only once per week visits and was conducted at several different subspecialty clinic sites. The second trial, using desipramine, has been the first conducted at the Substance Treatment and Research Service (STARS), a dedicated substance abuse treatment site. This trial has involved twice weekly patient visits. In the last trial, compliance was assessed by attendance at scheduled visits and provision of urine samples at three weekly visits. Participants returned to the clinic three times per week to give urine samples, report usage of other drugs of abuse: manual-driven relapse prevention psychotherapy (Carroll, 1997) was provided once per week. Remuneration was provided for compliance for each visit ($5). The principal research assistant was available by beeper. Twenty-two volunteers with a history of either intravenous or smoked cocaine use were screened for 14 patients randomized to drug, two patients were discounted due to protocol violations. Out of 372 total scheduled visits, only 25 (6.72%) were missed, indicating compliance of 93%. Both compliance and retention rates between the three trials show steady and significant improvement ($p<.005$).

Based on these experiences we conclude that the following features are beneficial in cocaine treatment trials: 1) three times per week clinic visits, 2) weekly remuneration contingent upon both compliance and abstinence, 3) 24-hour availability of research personnel, 4) manualized therapy, 5) an organized clinic setting. Given the cost of clinical trials for substance abusers and the importance of retention, we believe that these features have important consequences for the design and conduct of such trial.

NR306 Tuesday, May 18, 12 noon-2:00 p.m.

Teachers' Perspective on School Violence

Kathleen M. Fisher, Ph.D., Department of Nursing, Penn State University, 20 Briarcrest Square, Rm 208, Hershey PA 17033; Paul A. Kettl, M.D.

Summary:

Objective: Teachers in a semi-rural central Pennsylvania school district were surveyed about school violence.

Method: 536 teachers were given questionnaires on school violence, and 74% returned usable surveys. Data were tabulated and analyzed using chi square statistics via SPSS software.

Results: 24% of the teachers were assaulted at school, and in each case, a student perpetrated the attack. Fifty-two percent have been fearful of a student at school, and 26% were afraid of a student in the last year; 33% of teachers have been afraid of a parent, and 14% were afraid of a parent in the last year. In addition, 56% felt violence or the threat of violence has a direct impact on the quality of education they are able to provide. Female staff felt less prepared to address the needs of disruptive youth ($p<0.001$). Elementary school teachers were more likely to be victims of a physical assault by a student ($p=0.0006$) and more likely to fear parents ($p=0.002$) than other teachers.

Conclusion: Even in semi-rural areas, teachers are likely to be victimized and fear students or their parents. This fear adversely affects the quality of education.

NR307 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Valproate Use in Schizophrenia: 1994-1998

Leslie L. Citrome, M.D., Clinical Research, Nathan Kline Institute, 140 Old Orangeburg Road, Orangeburg NY 10962; Jerome Levine, M.D., Baerbel Allingham, M.S.

Summary:

Objective: To describe the extent of use of valproate among hospitalized psychiatric patients with schizophrenia.

Method: A database containing patient information and drug prescription information for every inpatient within the adult civil facilities of the New York State Office of Mental Health (NYSOMH) was queried for the period 1994 through 1998.

Results: Valproate use among NYSOMH inpatients (N= 21,132 in 1994 and N=11,550 in 1997) has steadily increased from 15% in 1994 to 39% in 1997 (1998 results to be reported). For patients diagnosed with schizophrenia the increase has been from 12% in 1994 to 32% in 1997. Dosage and duration of use are substantial, with patients receiving valproate for an average of 75% of their hospital stay, at an average daily dose of 1490 mg. Antipsychotics are prescribed in 95% of patients with schizophrenia who are prescribed valproate. Valproate is prescribed in about 30% of patients with schizophrenia who are prescribed any individual antipsychotic (from 29% for haloperidol to 37% for clozapine).

Conclusions: The only FDA-approved psychiatric indication for the use of valproate has been for mania in bipolar disorder (1995). However, from 1994 to 1997 valproate use among patients with schizophrenia has almost tripled. A definitive study of the efficacy and effectiveness of valproate for schizophrenia is needed.

NR308 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
The Ventilatory Response to Cholecystokinin-Tetrapeptide in Healthy Volunteers

Martin A. Katzman, M.D., Department of Psychiatry, Clarke Institute, 250 College Street, Toronto ON M5T IR8, Canada; James Duffin, Ph.D., Jakov Shlik, M.D., Jacques Bradwejn, M.D.

Summary:

Introduction: A modified rebreathing technique, which accurately measures the ventilatory response to carbon dioxide in terms of both threshold and sensitivity was used in this study. The subject rebreathes from a bag containing an initial hyperoxic and hypercapnic gas mixture resulting in rapid equilibration between alveolar gas and arterial blood) Use of a hyperoxic gas allows for the isolated examination of the central chemoreceptor (sensitive to CO2) without any effect of the peripheral (oxygen sensitive) receptor.

Objective: In this study we examined the effect of cholecystokinin-tetrapeptide (CCK-4), a panicogenic agent acting through the cholecystokinin-B receptor on the central chemoreceptor response. Various measures of activity of the central chemoreceptor were assessed including the threshold, sensitivity, and the baseline levels for response. with CCK-4 as compared with placebo.

Method: After significant training with the modified rebreathing technique. 15 subjects were assigned via a double-blind procedure to receive an injection of placebo or CCK4. Assessments were done between the group getting placebo and the CCK4 injection. Within-subject comparisons of the CCK4 group between the third run (received the CCK-4 injection) and the second re-breathe (received no injection).

Observations: In the subjects who received CCK-4, no significant differences between the second (no injection) re-breathe, and the third (the CCK4) were noted for: baseline ventilation (45.90 ± 1.20 vs. 46.10 ± 1.50), threshold C02 resulting in a change in ventilation (2.12 ± 0.12 vs. 2.05 ± 0.29), or for sensitivity to C02 of the central chemoreceptor (0.0548 ± 0.0033 vs. 0.0531 ± 0.0026). Significant differences were noted between the CCK-4 group in comparison with the placebo group for change in peak heart rate between the second and third re-breathe (Mann Whitney $P<0.001$) and for change in ventilation between the second and third re-breathe (Mann Whitney $p<0.004$).

Discussion: We conclude that CCK-4 does not act to induce panic by altering the central (C02 sensitive) chemoreceptor. This finding calls into question the "false suffocation hypotheses of panic."

NR309 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Cognitive-Behavior Therapy Alone Versus Cognitive-Behavior Therapy with Pharmacotherapy in the Treatment of Panic Disorder with Agoraphobia

Vladan Starcevic, M.D., Institute of Mental Health, Palmoticeva 37, Belgrade 11000, Yugoslavia; Goran Bogojevic, M.D., Borwin Bandelow, M.D.

Summary:

Objective: To examine effects of cognitive-behavior therapy (CBT) alone and CBT combined with pharmacotherapy in the treatment of panic disorder with agoraphobia (PDA).

Methods: This was a naturalistic study, in which 102 outpatients with the DSM-IV diagnosis of PDA participated. Twenty-four patients were treated with CBT alone, 47 with a combination of CBT and a high-potency benzodiazepine (HPB; alprazolam or clonazepam), and 31 with a combination of CBT and two medications: a HPB and a selective serotonin reuptake inhibitor (SSRI; fluoxetine). These three groups of patients were compared in terms of the severity of PDA (as assessed by scores on the Panic Disorder Severity Scale; PDSS) at baseline, end of treatment, and with respect to treatment effects. All analyses were performed by means of ANOVA.

Results: At both baseline and end of treatment, patients who were treated with CBT and medications had a significantly more severe illness than patients treated with CBT alone, although this difference was much smaller at the end of treatment (PDSS scores at baseline 21.61 for the CBT + HPB + SSRI group, 18.36 for the CBT + HPB group, 13.00 for the CBT group alone; $F=44.79$; $P=0.0001$; PDSS scores at the end of treatment: 7.13 for the CBT + HPB + SSRI group, 6.28 for the CBT + HPB group, 4.04 for the CBT group alone; $F=6.97$; $p=0.0015$). However, the treatment effects were more pronounced in patients treated with

a combination of CBT and pharmacotherapy (F=29.87; p=0.0001).

Conclusions: These results confirm that the more severely ill patients achieve larger treatment gains, perhaps because they are more vigorously treated (in this case, with a combination of CBT and pharmacotherapy). Therefore, patients with a more severe form of PDA may be more likely to benefit from a combined treatment.

NR310 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Two Multicenter Trials Evaluating Sertraline and Placebo for the Treatment of PTSD

Barbara Rothbaum, Ph.D., Department of Psychiatry, Emory Medical School, 1365 Clifton Road, NE, Atlanta GA 30322; Gail Farfel, Ph.D.

Summary:

Objective: To evaluate the comparative efficacy and safety of sertraline compared with placebo in outpatients with post-traumatic stress disorder (PTSD).

Method: Two multicenter, 12-week, double-blind, flexible dose studies of adult outpatients with a DSM-III-R diagnosis of PTSD were conducted at U.S. centers (n=12 and 14) to evaluate the safety and efficacy of sertraline (50-200 mg/day) compared with placebo in the treatment of PTSD. Primary efficacy measures were the Clinician-Administered PTSD Scale (CAPS-2), Clinical Global Impression (CGI) ratings of severity and improvement, and the patient-rated Impact of Event scale (IES).

Results: At endpoint, sertraline-treated patients (n=100 and 94 for trials 1 and 2, respectively) exhibited significantly ($p<.05$) greater improvement than placebo patients (n=108 and 93) on all primary efficacy measures in Study I and on the CAPS-2, CGI-S, and CGI-I in Study 2. Quality of life, assessed in Study 2 using the Q-LES-Q, improved by 21% at endpoint for sertraline patients compared with 6% for placebo patients ($p<.01$). Sertraline was generally well tolerated. The most frequently reported adverse events (≥10%) that occurred in significantly more sertraline-treated patients than placebo-treated patients in the two trials combined were insomnia, diarrhea, and nausea. Treatment discontinuations due to adverse events occurred in 10% of sertraline-treated patients compared with 5% of placebo-treated patients, and this difference was not significant. There were no clinically meaningful changes in laboratory values nor any significant changes in vital signs or ECGs between treatment groups.

Conclusion: In these trials, sertraline (50-200 mg/day) was shown to be an effective and well-tolerated treatment for patients with PTSD.

Research funded by Pfizer, Inc.

NR311 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
11-Year Follow-Up of Panic Disorder

Michaela Amering, M.D., Department of Psychiatry, University Vienna, Waehringer Guertel 18-20, Vienna 1090, Austria; Hemma Griengl, M.D., Johann Windhaber, M.D., Heinz Katschnig, M.D.

Summary:

Objective: The purpose of this study was to prospectively assess the naturalistic long-term course of panic disorder over a period of 11 years.

Method: Thirty DSM-III-R panic disorder patients, who had taken part in a multicenter drug trial and had been interviewed for follow-up three years after they had left the trial, were included in the present follow-up study eight years later for a total period of 11 years. Frequency of panic attacks, level of phobic avoidance and disabilities at follow-up, as well as treatments received during the follow-up period were assessed with a structured clinical interview (FIPS).

Results: Of the 24 patients interviewed at 11-year-follow-up, 67% had had no panic attack at all during the year before the assessment; 54% showed no or only mild phobic avoidance. In the areas of work and family life, 90% reported no or only mild disabilities, whereas in the area of social life this percentage was lower (67%). Improvements in these areas seen at three-year-follow-up were maintained and in many instances greatly enlarged. While at the assessment after three years no patient had fulfilled the criteria for full remission, at 11-year-follow-up 33% of patients were completely remitted.

Conclusions: These results — with the disadvantage of a small sample, but the advantage of a follow-up period of 11 years — clearly show, that panic disorder is not a uniformly chronic progressing disorder. We conclude that there is a good chance of recovery from panic attacks and disabilities and even full remission after a long period of suffering from panic disorder with agoraphobia is possible.

NR312 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Retrospective Follow-Up Study of Body Dysmorphic Disorder

Katharine A. Phillips, M.D., Butler Hospital/Brown Univ, 345 Blackstone Boulevard, Providence RI 02906; Jon Grant, J.D., Ralph S. Albertini, M.D., Robert Stout, Ph.D., Lawrence H. Price, M.D.

Summary:

Background: Body dysmorphic disorder (BDD) usually begins during adolescence and appears to usually be chronic. No follow-up studies of the course of BDD, however, have been conducted.

Method: The status of 76 adults and adolescents who were treated in the clinical practice of the first or third author was assessed by a retrospective follow-up chart review. Ratings were done for baseline and the most recent clinic visit (mean duration of follow-up = 1.9 ± .3 years). Ratings of subject status were also done at six-month intervals over the first three years of treatment. Standard rating scales were used to assess BDD, comorbid disorders, and other variables. Kaplan-Meier survival curves were used to estimate the probability of recovery at one and three years.

Results: Allowing for censoring, life table analysis estimated that the proportion of subjects who experienced full remission from BDD at the six month and/or 12 month assessment was 25%; the proportion who experienced partial or full remission was 58%. After three years of follow-up, 49% had experienced full remission and 91% partial or full remission at 1 or more assessment points. Improvement in BDD was positively correlated with improvement in depression. BDD severity and delusionality at baseline, duration of BDD, and the presence of a personality disorder were not associated with BDD severity at the most recent follow-up visit. All subjects received at least one medication trial (most often, an SRI) 22% received cognitive-behavioral therapy, and 35% received psychotherapy.

Conclusions: Although cross-sectional/retrospective data suggest that BDD is a chronic condition, we found that a majority of treated patients improved. These results shed some light on the course of BDD, but prospective longitudinal studies are needed.

NR313 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Quality of Life in Body Dysmorphic Disorder

Katharine A. Phillips, M.D., Butler Hospital/Brown Univ, 345 Blackstone Boulevard, Providence RI 02906

Summary:

Background: Body dysmorphic disorder (BDD) is associated with high levels of distress and impaired functioning. However, quality of life for patients with BDD has never been assessed. In this study, the health-related quality of life of patients with BDD was compared with published norms for the general U.S. population and for patients with depression, diabetes, or a recent myocardial infarction.

Method: Sixty-two consecutive outpatients with DSM-IV BDD were evaluated with the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36), a widely used, reliable, and valid self-report measure of health status and health-related quality of life. SF-36 scores were compared with published norms for several populations. Subjects were also assessed with other standard scales, including the Yale-Brown Obsessive Compulsive Scale Modified for BDD (to assess BDD severity) and the Hamilton Depression Rating Scale.

Results: Physical health status and physical health-related quality of life scores for patients with BDD were worse than norms for the general population and better than scores of outpatients with a medical illness or depression (major depression and/or dysthymia). However, on all four scales assessing mental health status and mental health-related quality of life (mental health, social functioning, role limitations due to emotional problems, and vitality), scores of BDD patients were markedly lower than norms for the general U.S. population. They were also notably lower than norms for patients with depression, diabetes, or a recent myocardial infarction. The more severe the BDD symptoms, the lower were patients' quality of life scores on the SF-36 mental health (r=-.63, p=.000) and social functioning (r=-.55, p=.000) scales, even after controlling for severity of depression.

Conclusions: These findings suggest that BDD is associated with notably poor mental health status and mental health-related quality of life.

NR314 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Predictors of Chronic PTSD: A Prospective Study

Sara A. Freedman, M.Sc., Department of Psychiatry, Hadassah Hospital, Ein Kerem POB 12000, Jerusalem 91120, Israel; Dalia Brandes, M.A., Tuvia Peri, Ph.D., Arieh Y. Shalev, M.D.

Summary:

Objective: To evaluate prospectively predictors of PTSD at four months and one year.

Method: 236 trauma survivors recruited from admissions to a general hospital's emergency room were followed for four months, when 41 (17.4%) met criterion for PTSD. Twenty three of these subjects, and 39 without PTSD were assessed again at one year post-trauma.

Results: Depressive symptoms were the best predictors of both PTSD status and symptoms at both time points. Intrusive symptoms and peri-traumatic dissociation were better at predicting at four months than one year PTSD. Although some subjects with PTSD did not meet full criteria at one year, most were still symptomatic at this time, possibly reflecting a fluctuation in the expression of PTSD rather than "recovery" per se.

Conclusions: The occurrence of depression during the months that follow a traumatic event is an important mediator of chronicity in PTSD. Once expressed fully, recovery from PTSD is likely to be incomplete, and this should be taken into account, especially among those likely to be re-exposed to trauma. Early symptoms, such as intrusion and dissociation, seem not to be good predictors of chronic PTSD.

Supported by a U.S. Public Health Service Research Grant # NM-50379.

NR315 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Childhood Trauma and Dissociative Symptoms in Panic Disorder

Randall D. Marshall, M.D., Anxiety Disorders, NYS Psychiatric Institute, 1051 Riverside Drive, New York NY 10032; Franklin R. Schneier, M.D., Shu-Hsing Lin, Ph.D.

Summary:

Objective: Increased rates of childhood trauma have been reported in panic disorder compared with other anxiety disorders and with comparison groups without psychiatric disorder. Similarly, dissociative symptomatology in adults has been linked to childhood traumatic experiences. Depersonalization and derealization are two dissociative symptoms listed in the DSM-IV as possible symptoms of a panic attack. We therefore hypothesized that individuals who experience depersonalization/derealization during panic attacks might report higher rates of childhood trauma than those who do not experience such symptoms. This to our knowledge is the first such study in the literature.

Method: Childhood traumatic events and panic symptoms were assessed by structured interview in 74 adults entering a clinical trial for panic disorder. Chi square analysis was used to compare rates of traumatic events and overall severity of traumatic events during childhood among those with (N=34) and without (N=40) depersonalization/derealization during panic.

Results: Contrary to our hypotheses, no significant differences or trends in the hypothesized direction were found.

Conclusion: Whether an individual experiences dissociative symptoms during panic does not appear to be influenced by history of childhood trauma. Further study of factors that influence the phenomenology of panic attacks is needed.

NR316 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Panic Disorder: Treatment Improves Immune Function

R. Bruce Lydiard, M.D., Department of Psychiatry, Medical University of SC, 171 Ashley Avenue, Suite 404, Charleston SC 29425

Summary:

Introduction: Patients with GAD or panic disorder (PD) exhibit diminished immunocompetence compared with normal comparison subjects. The frequency of upper respiratory infections (URIs) correlated with immunocompetence in both patients and NCS. Stress intrusion status (SIS) rating scores (subjective response to stress) correlated positively with immunodepression.

Method: We evaluated immunocompetence and frequency and duration of URIs in 59 patients with DSM-III-R PD and in 59 normals.

Results: PD patients exhibited significantly decreased immunocompetence as assessed via anti-CD3-stimulated CD25 expression in T lymphocytes vs. NCS. PD patients also reported more frequent and longer URIs than NCS. Twenty-five PD patients were reevaluated after 10 weeks of treatment. Twenty-

five patients were reexamined after treatment, and in 17/25, immunocompetence was restored to levels approaching NCS and correlated with global outcome. These results confirm and extend our previous findings. Furthermore, therapeutic intervention for PD appears to be associated with a restoration of immune function in most patients.

NR317 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
The Johns Hopkins OCD Family Study: OCD Familiality

Gerald Nestadt, M.D., Department of Psychiatry, Johns Hopkins, 600 N Wolfe Street/Meyer 4-181, Baltimore MD 21287; Jack F. Samuels, Ph.D., Michelle Labuda, Ph.D., Oscar J. Bienvenu III, M.D., Kung Yee Liang, Ph.D., Mark A. Riddle, M.D., Rudolf Hoehn-Saric, M.D.

Summary:

Method: Eighty probands were recruited from four Baltimore-Washington area OCD treatment centers. Eighty control probands were recruited using a random-digit-dialing approach and matched for age, gender, race, and telephone exchange. Three hundred twenty-two first-degree relatives of case probands and 295 first-degree relatives of control probands participated in the study. Subjects were interviewed directly by clinicians (psychiatrists or PhD psychologists) using a modified version of SADS-LA and SIDP(IV). Additionally, a knowledgeable informant was interviewed about each subject. Consensus DSM-IV diagnoses were made by an independent review about each subject and by an independent review of all clinical materials. Data were analyzed using logistic regression along with a Generalized Estimation Equations procedure for correlated data. Age and sex of the relative were modeled as covariates.

Results: Significant odds ratios were found for all definitions of the affected phenotype, indicating that first-degree relatives of cases met criteria for OCD-related phenotypes more often than first-degree relatives of controls. In general, using a more stringent criterion for affection status resulted in a more significant odds ratio; all odds increased when age effects were taken into consideration. A stronger familial risk was found for obsessions than for compulsions.

Conclusions: Preliminary results indicate that OCD is a familial condition and suggest that stricter diagnoses are more specific. Molecular genetic studies of OCD are indicated.

NR318 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Long-Term Study of Panic Disorder: A Comparison

Pinhas N. Dannon, M.D., Department of Psychiatry, Chaim Sheba Medical Center, Department C, Tel Hashomer 52621, Israel; Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

Summary:

Background: The short-term efficacy of paroxetine and fluoxetine in the treatment of panic disorder is well established. However, few controlled and/or naturalistic studies have examined whether long-term continuation of pharmacotherapy in responders does prevent relapse in these patients.

Methods: 51 patients with panic disorder without agoraphobia received in a naturalistic manner 20-40mg/day of paroxetine (N=37) or fluoxetine (N=14) for more than 12 months. The two patient groups did not differ from each other regarding clinical and demographic variables. Patients were evaluated every four weeks according to the Panic Self-Questionnaire and were monitored for efficacy, side effects, and relapse. Statistical analyzes were performed by t test for independent samples.

Results: Six patients (16%) from the paroxetine group and two patients (14%) from the fluoxetine group reported a relapse during the follow-up. There was no significant difference in the relapse rate between the two study groups. The most common long-term side effects were weight gain and sexual side effects. Sexual side effects were more common in those patients treated with paroxetine ($t=5.57$; $p<0.03$).

Conclusions: Long-term treatment with SSRIs is effective in preventing relapse in long-term panic disorder patients. There was no difference in the relapse rate in the patients treated with paroxetine or fluoxetine. Significant weight gain was noted in this group of patients. Sexual side effects were more prevalent in paroxetine-treated patients.

NR319 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Short-Term Potentiation of Paroxetine with Clonazepam in the Treatment of Patients with Panic Disorder

Pinhas N. Dannon, M.D., Department of Psychiatry, Chaim Sheba Medical Center, Department C, Tel Hashomer 52621, Israel; Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

Summary:

Background: We examined whether clonazepam augmentation of paroxetine treatment is more effective than paroxetine treatment alone in the management of panic disorder patients.

Methods: 143 patients with panic disorder (N=85) and panic disorder with agoraphobia (N=58) received 20-40 mg/day paroxetine for 14.1± 2.3 3 months. Sixty-seven patients received 0.75mg of clonazepam for the first eight weeks of treatment. We tapered the clonazepam during a three-week period until total interruption. No side effects were reported in the tapering period. Clinical Global Impression (Improvement Scale) and Panic Self-Questionnaire were used to evaluate the improvement. T test for independent samples and chi-square test (two-tailed Fisher's exact test) were used to analyze the data.

Results: The two groups were similar as regards demographic and clinical (panic attack frequency) variables. The patients who received clonazepam and paroxetine improved more significantly in the first three weeks of the treatment according to the Panic Self-Questionnaire and the Clinical Global Impression Scale. After 12 weeks of treatment there were no significant differences between the groups on these scales. However, the overall outcome demonstrated that 11% of the patients who received the combination reported relapse in comparison with 3% in those treated with paroxetine only ($t=4.9$; $p<0.025$ and on Fisher Exact Test two-tailed: $p<0.045$).

Conclusions: Clonazepam potentiation of paroxetine was effective in the beginning of the treatment. However, the outcome measures demonstrated a higher relapse rate after the treatment with clonazepam was stopped.

NR320 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Does Weight Change Follow Recovery from Panic Disorder?

Pinhas N. Dannon, M.D., Department of Psychiatry, Chaim Sheba Medical Center, Department C, Tel Hashomer 52621, Israel; Iulian Iancu, M.D., Leon J. Grunhaus, M.D.

Summary:

Background: Paroxetine is a well-tolerated antidepressant medication and is also effective in the treatment of panic disor-

der. Although short-term treatment of anxiety disorders with paroxetine is not associated with significant weight gain, weight change over longer treatment periods has not been evaluated.

Methods: In this study we examine the weight change in patients who suffer from panic disorder with or without agoraphobia. Patients received 20-40mg/day paroxetine and were divided according to naturalistic follow-up into two groups: those receiving paroxetine for less than 12 months (8.4±2.1) and those receiving paroxetine for longer periods (19.2±4.6). The statistical analysis was performed with t-test for independent samples.

Results: 72 patients were treated with paroxetine up to 12 months and 71 patients received paroxetine for more than a year. The two groups were similar as regards demographic and clinical variables. The mean baseline weight for the first group was 66.5±8.1 kg and for the second group was 66.3±8.8 kg. Patients who received paroxetine for one year had a significant weight gain at the end of the treatment to a weight of 71.2±9.95 kg ($t=-19.5$; $p<0.000$), and those receiving paroxetine for more than a year, had a final weight of 71.46±10.18 kg ($t=-21.1$; $p<0.000$). However, there was no significant weight gain after the first year of paroxetine treatment.

Conclusions: Patients who received paroxetine had a significant weight gain (10% of the basal weight), already during the first year of treatment. In the second year, the weight gain abated.

NR321 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Cerebral Perfusion Before and After Flashbacks in Patients with Chronic PTSD

Elizabeth A. Osuch, M.D., Biological Psychiatry, NIMH, Building 10, Room 3N-212, Bethesda MD 20892; Una D. McCann, M.D., Marilla Geraci, R.N., Christina Morgan, B.A., Brenda E. Benson, B.S., Frank W. Putnam, Jr., M.D., Robert M. Post, M.D.

Summary:

Introduction: Studies of regional cerebral perfusion (rCBF) using positron emission tomography (PET) during flashbacks in post-traumatic stress disorder (PTSD) have found increases in right frontal/limbic areas and decreases in Broca's area in some patients.

Methods: Seven subjects with chronic PTSD had a series of six PET scans 10 minutes apart, using H2[15]0. The first three scans, when subjects rested quietly, were averaged and compared with the next three scans after subjects heard an audiotaped reading of their trauma script. Analyses were performed on normalized images and were corrected for multiple comparisons.

Results: Compared with controls, PTSD subjects at baseline showed hyperperfusion in the cerebellum, left thalamus, and posterior cingulate; and hypoperfusion in the right hippocampus, medial frontal gyrus, and inferior frontal gyri. After flashbacks, perfusion increased in the right inferior frontal gyrus, right lenticular nucleus, and cingulate gyri, and decreased in the right medial temporal gyrus and right fusiform gyrus.

Conclusions: Persistent rCBF increases were observed in the cerebellum and posterior cingulate gyrus, while flashbacks were associated with increases in right frontal, lenticular, and superior cingulate areas, representing possible trait-specific and flashback-specific abnormalities, respectively.

NR322 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Early Response to Sertraline As a Predictor of 12-Week Outcome in Panic Disorder

Mark H. Pollack, M.D., Anxiety Disorders Program, Massachusetts General Hospital, 15 Parkman Street, WAC-812, Boston MA 02114; Mark H. Rapaport, M.D., Cathryn M. Clary, M.D., Robert Wolkow, M.D., Michael W. Otto, Ph.D.

Summary:

Objective: Despite the growing use of SSRIs for the treatment of panic disorder (PD), there is little systematic data regarding the relationship between early response to treatment and eventual outcome, an issue with important clinical implications. The purpose of the present analysis is to examine the relationship of response to 50 mg/day sertraline early in treatment for PD, with outcome after 12 weeks.

Methods: Subjects for the analysis were drawn from a multicenter, fixed-dose study (n= 178) in PD with/without agoraphobia on sertraline (50 mg, 100 mg, or 200 mg) or placebo. Sertraline in the dose range of 50-200 mg/d was more effective than placebo in panic attack reduction; overall response rates were equal for each of the three dose groups. In the present analysis of the 67 subjects on 50 mg/d of sertraline, we examined the conditional probability of remission at week 12 (defined as CGI-S of 1 or 2 and 0 panic attacks given at least a 50% reduction in panic attack frequency (i.e., "responder") at weeks 1-4 of treatment).

Results: Of subjects responding at week 1, 23/29 (79%) were in remission by week 12; 12/38 (32%) of those with less than 50% reduction in Pas at week 1 met remission criteria by 12 weeks. PA reduction at week 2 was associated with 31/45 (69%) vs. 3/17 (18%) of subjects meeting criteria for remission by wk 12. At week 3, the rates of eventual response were 30/41 (73%) vs. 2/15 (13%) and at week 4, 30/43 (73%) vs. 1/10 (10%) respectively.

Conclusions: Early response to treatment is strongly associated with eventual outcome to therapy with sertraline at 12 weeks. The clinical implications of these findings are that patients experiencing at least a 50% reduction in panic attacks by week 2 of a 50 mg/d sertraline trial are likely to show a full response at 12 weeks of acute treatment. Further research to investigate treatment options for nonresponders at two weeks is needed.

NR323 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Efficacy of Sertraline in Long-Term Treatment in Panic Disorder: Preliminary Results of a Multicenter Study

Anita L.H. Clayton, M.D., Dept of Psych Box 623 HSC, University of Virginia, 2955 Ivy Road, Ste 210, Charlottesville VA 22903; R. Bruce Lydiard, M.D., Robert Wolkow, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D.

Summary:

Objective: Panic disorder often requires long-term treatment. Sertraline has been proven effective in several acute studies of panic disorder, with or without agoraphobia. The current study was undertaken to evaluate long-term efficacy and safety of sertraline treatment in panic disorder.

Methods: Outpatients with DSM-III-R panic disorder who had completed one of three double-blind, placebo-controlled, 10-week studies were treated for 52 weeks with open-label sertraline followed by randomization of responders (CGI-Improvement of 1 or 2) to 28 weeks of double-blind, placebo-controlled treatment. Efficacy was evaluated by number, intensity and duration of full-blown panic attacks, number of limited symptom attacks, percent time worrying, MC-PAS, CGI-Severity, CGI-Improvement, HAM-A, PGE, and Q-LES-Q (quality of life) ratings.

Results: 398 subjects from 31 U.S. centers entered the study; at week 52, 183 subjects were randomized, 93 to sertraline, 90

to placebo. Less than 5% of subjects discontinued the study due to insufficient clinical response during 52 weeks of open-label treatment. Rates of discontinuation due to relapse or insufficient clinical response (12% in sertraline group vs. 24% in placebo group) and rates of acute exacerbation of panic disorder (13% in sertraline group vs. 30% in placebo group) were each statistically significant ($p<0.05$). Sertraline was statistically more effective than placebo as measured by change in the double-blind baseline to endpoint on percent time worrying, CGI-Severity, CGI-Improvement, and PGE scores.

Conclusion: Sertraline was effective in long-term treatment in panic disorder for up to 80 weeks. Sertraline was substantially better than placebo in prevention of worsening of panic disorder symptoms.

NR324 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Early Versus Late-Onset Panic Disorder: Vulnerability

Javaid I. Sheikh, M.D., Department Of Psychiatry, Stanford University, Stanford School of Medicine, Stanford CA 94305-5546; Pamela J. Swales, Ph.D.,Glenn Brassington, M.A.

Summary:

Objective: We have previously reported (Sheikh & Swales, 1995) that late-onset panic disorder (LOPD, onset ≥ 55) appears to be a phenomenologically distinct syndrome from early-onset panic disorder (EOPD, onset≤54). Hypothesizing that genetic and environmental vulnerability factors may distinguish EOPD from LOPD, we investigated for both family history of anxiety and life events in the year preceding panic onset.

Methods: Eighty-five subjects (73 EOPD, 12 LOPD) met DSM-III-R criteria for panic disorder and responded to clinical interviews regarding family history of anxiety (broadly defined as highly anxious or nervous, panic attacks, phobias) and various life events (12 major areas) in the year prior to panic onset (PERI) (Dohrenwend et al, 1978).

Results: Sixty-three percent of participants with EOPD reported a family history of anxiety as compared to 50% of participants with LOPD. Logistic regression analysis suggests that a family history of anxiety is associated with a 70% greated likelihood of EOPD (OR=1.70, N.S.). However, types of life events, and their sum, (LOPD mean sum = 3.31, EOPD mean sum = 4.17, t(81) = .96 n.s.) appear similar.

Conclusion: Preliminary analyses suggest genetic vulnerability, but not environmental influences, seems to distinguish between EOPD and LOPD.

Supported in part by NIMH Grant MH49226, U.S. Department of Health and Human Services.

NR325 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Impulse-Related Grooming Disorders Across Anxiety

Laura J. Summerfeldt, Ph.D., Anxiety Disorders, St. Joseph's, 50 Charlton Avenue East, Hamilton ON L8N 4A6, Canada; Margaret A. Richter, M.D., Martin M. Antony, Ph.D., Karyn E. Hood, M.Ed., Richard P. Swinson, M.D.

Summary:

Objective: In light of current interest in an "obsessive-compulsive spectrum" of disorders, we sought to determine whether comorbidity patterns support the unique relationship hypothesized between these conditions and OCD. In this study, grooming-related spectrum conditions were specifically examined, including trichotillomania, skin picking and nail biting (onychophagia).

Method: Lifetime rates of grooming-related spectrum conditions were ascertained using a structured diagnostic interview (modified SCID-IV) in individuals with one of three anxiety disorder principal diagnoses: obsessive-compulsive disorder [OCD], social phobia, or panic disorder (n = 283). Yates-corrected χ^2 analyses were performed both on rates of clinical disorders alone, and clinical and subclinical manifestations, jointly.

Results: Findings indicated significant differences among the anxiety disorder groups in rates of skin picking ($p<0.05$) and clinical plus subclinical trichotillomania ($p< 0.05$). The prevalence of comorbid clinically significant onychophagia was essentially the same in all three groups.

Conclusions: The relationship observed between OCD and grooming-related spectrum disorders has important conceptual and clinical implications. These include the need for refinement of the hypothesized spectrum, the salience of grooming-related disorders in the OC spectrum, and the possibility that the relationship between these spectrum conditions and anxiety disorders may take several different forms.

NR326 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Double-Blind, Placebo-Controlled Trial of Paroxetine for Social Anxiety Disorder in South Africa

Dan J. Stein, M.D., Department of Psychiatry, University of Stellenbosch, PO Box 19063, Tygerberg 7505, South Africa; Michael Berk, M.D., Charl Els, M.D., Robin A. Emsley, M.D., Don Wilson, M.D., Rosemary Oakes, Ph.E., Brian Hunter, M.D.

Summary:

Background: The selective serotonin reuptake inhibitors (SSRIs) have been suggested as useful for treating social anxiety disorder (social phobia) , but few controlled trials have been reported to date. In particular, there is little controlled data from outside of North America.

Methods: A double-blind, randomized, placebo-controlled multisite, flexible dose trial of paroxetine was undertaken over 12 weeks in patients with a primary diagnosis of social phobia: 93 patients at nine South African sites participated; their data are reported here.

Results: There was a significant drug effect on both the CGI Global Improvement score and the LSAS at 12 weeks. There was no significant difference in overall rate of adverse experiences between paroxetine and placebo, and there were no significant differences between paroxetine and placebo on rates of any specific adverse experience.

Conclusions: Paroxetine is both effective and safe in the acute treatment of social phobia. The findings here are consistent with previous controlled studies of the SSRIs, and with previous work in the United States. Further research on long-term pharmacotherapy of social phobia is, however, needed.

NR327 Tuesday, May 1-8, 3:00 p.m.-5:00 p.m.
Predictors of Response to Pharmacotherapy in Social Anxiety Disorder: An Analysis of Three Placebo-Controlled Paroxetine Trials

Dan J. Stein, M.D., Department of Psychiatry, University of Stellenbosch, PO Box 19063, Tygerberg 7505, South Africa; Murray B. Stein, M.D., R. Bruce Lydiard, M.D., Cornelius D. Pitts, R.P.H., Rosemary Oakes, Ph.E., Brian Hunter, M.D.

Summary:

Background: Response rates to selective serotonin reuptake inhibitors (SSRIs) in social anxiety disorder (social phobia) range from at least 50% in controlled trials to up to 80% in open trials. Little data are, however, available on predictors of response to medication in this disorder.

Methods: Three placebo-controlled multi-center trials of paroxetine in social anxiety disorder were combined to provide a large sample (n=802) of patients with at least one on-therapy assessment. Multivariate statistics were used to evaluate whether demographic (age, sex) and clinical (duration of illness, baseline social phobia symptom severity) variables were related to treatment outcome (defined using the Clinical Global Impression (CGI) Global Improvement score).

Results: None of the demographic or clinical variables of interest proved to be significant predictors of response to treatment.

Conclusion: Paroxetine is an appropriate choice of medication in a broad spectrum of patients with social anxiety disorder. Research on neurobiological predictors of pharmacotherapy response in social anxiety disorder remains a task for the future.

NR328 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
PTSD with Psychotic Symptoms

Janet E. Johnson, M.D., Department of Psychiatry, Tulane University Medical Ctr, 1440 Canal Street, TB53, New Orleans LA 70112; Fredric J. Sautter, Ph.D.

Summary:

Studies have shown that approximately 30% of treatment-seeking Vietnam combat veterans with post-traumatic stress disorder (PTSD) also show psychotic symptoms. There is a lack of data pertaining to the etiology of psychotic symptoms when they co-occur with PTSD. This study compared three groups of Vietnam combat veterans: 1) PTSD with chronic psychotic disorder, 2) PTSD without psychotic symptoms, 3) chronic psychotic disorder (without PTSD). All patients (i.e., probands) and their first-degree relatives were diagnosed with the SCID; all probands were assessed with the PANSS, Mississippi Scale for PTSD, and Aggression Risk Profile. Probands were compared for differences in symptoms; their available relatives were compared for differences in Axis I disorders. Probands with PTSD and psychosis showed significantly higher levels of positive psychosis, aggression, and general psychopathology; their first-degree relatives showed high levels of depression and anxiety disorder, and a paucity of psychosis. These data suggest that PTSD with psychotic symptoms may be a severe form of PTSD that is genetically distinct from the psychoses.

NR329 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Sexual Dysfunction in Chronic PTSD Patients

Netta Levin, M.D., Department of Psychiatry, Hadassah Hospital, Ein Kerem POB 12000, Jerusalem 91120, Israel; Tuvia Peri, Ph.D., Arieh Y. Shalev, M.D.

Summary:

Objective: To assess sexual dysfunction in PTSD male and female patients while controlling for anxiety and trauma exposure.

Method: 29 PTSD outpatients (22 male, 7 female), 24 anxiety disorder outpatients (12/12), and 29 trauma exposed subjects without PTSD (23/6), participated in the study. None had been exposed to a sex-related trauma. Sexual functioning was assessed by a population validated questionnaire with six subscales: satisfaction, desire, health, intimacy, erection and premature ejaculation (men), and anorgasm and vaginismus (women).

Results: 48% of the PTSD group reported severe dysfunction in at least one subscale, compared with 25% in the anxiety disorders group and 3.5% in the trauma exposed group. Among the men, PTSD patients expressed significantly more dysfunctions than anxiety disorders and trauma exposed patients in all six subscales, particularly in regard to erection (55%) and desire (73%) problems. Among the women, PTSD patients did not differ significantly from control groups except a trend to higher dysfunction scores in regard to the desire subscale.

Conclusions: Sexual dysfunction is a severe and common problem in chronic PTSD, following a non-sexual trauma, in particular amongst men. These difficulties are far greater than those seen in the general population, those previously exposed to trauma, and those suffering from anxiety disorders.

NR330 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Placebo-Controlled Study of Sertraline in Generalized Social Phobia

Michael A. Van Ameringen, M.D., Department of Psychiatry, McMaster Medical Center, 1200 Main Street West, Hamilton, ONT L8N 3Z5, Canada; Richard P. Swinson, M.D., Roger M. Lane, M.D.

Summary:

Objective: To evaluate the efficacy, safety, and tolerability of sertraline, a selective serotonin reuptake inhibitor, in the treatment of generalized social phobia.

Method: Following a one-week, single-blind, placebo run-in, 206 adult outpatients with generalized social phobia from 10 Canadian centers were randomized to 20 weeks of double-blind treatment with sertraline or placebo in a 2:1 ration. The initial daily dosage of sertraline was 50mg with increases of 50mg/day every three weeks permitted after the fourth week of treatment (flexible dosing to a maximum of 200mg/day). Primary efficacy assessments were the percentage of patients much or very much improved on the Clinical Global Impression of Improvement (CGI-I) scale, and the mean total score baseline to endpoint change on the social phobia subscale of the Marks Fear Questionnaire and the Duke Brief Social Phobia Scale (BSPS).

Preliminary Results: 71 (53%) of 134 persons receiving sertraline and 20 (29%) of 69 persons receiving placebo were CGI-I responders at the end of treatment ($p<0.001$). Mean Marks Fear Questionnaire social phobia subscale and BSPS total score were reduced by 32.5% and 34.8% in the sertraline group and 8.6% and 16/7 in the placebo group ($p<0.005$), respectively. Sertaline-treated patents also evidenced significant improvements relative to patients receiving placebo on all secondary efficacy parameters and on social/leisure functioning and mental health dimensions of quality of life assessments ($p<0.05$). Overall, sertaline was well tolerated.

Conclusions: This study demonstrated sertraline to be an effective treatment for generalized social phobia. Future research should assess whether improvements may be maintained or further improved by either continued treatment or by augmentation with specific cognitive-behavioral techniques.

NR331 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Placebo-Controlled Pilot Study of Sertraline in PTSD

Daniela Amital, M.D., Department of Psychiatry, Chaim Sheba Medical, Tel Hashomer 52621, Israel; Joseph Zohar, M.D.,

Moshe Kotler, M.D., Avi Bleich, M.D., Hanoch Nrodovnik, M.D., Adit Nevo, M.D., Roger M. Lane, M.D.

Summary:

Objective: To evaluate the efficacy, safety, and tolerability of sertraline, a selective serotonin reuptake inhibitor, in the treatment of patients with predominantly combat-induced post-traumatic stress disorder.

Method: Following a one-week, single-blind, placebo run-in, adult outpatients with post-traumatic stress disorder (>6 months, CGI-S ≥ 4, CAPS 17-item ≥ 50) from three Israeli centers were randomized to 10 weeks of double-blind treatment with sertraline or placebo in 1:1 ratio. The initial daily dosage of sertraline was 50mg with increases of 50mg/day every two weeks if response unsatisfactory, to a maximum of 200mg/day. Primary efficacy assessments were the percentage of patients much or very much improved on the Clinical Global Impression of Improvement (CGI-I) scale, and the clinician administered Post-Traumatic Stress Disorder Scale (CAPS-2) score.

Preliminary Results: Of 51 patients entered into the study 42 were available for the intent-to-treat analysis. Nine (39%) of 23 receiving sertraline and four (21 %) of 19 receiving placebo were CGI-I responders at the end of treatment. In patients completing the study nine (53%) of 17 receiving sertraline and three (20%) of 15 receiving placebo were responders. Mean CAPS-2 scores were reduced by -18.5% and -26.4% in the sertraline group and -13.5% and -14.2% in the placebo group in the endpoint and completer analyses, respectively. Overall, sertraline was well tolerated.

Conclusions: This pilot study suggests that sertraline may be an effective treatment for predominantly combat-induced post-traumatic stress disorder. Future research in adequately powered studies should assess whether improvements may be maintained or further improved by continued treatment.

NR332 Tuesday, May 18, 3:00 p.m.-5:00 p.m.

Components of Impulsivity in OCD Subtypes

Karyn E. Hood, M.Ed., Anxiety Clinic, Clarke Institute, 250 College Street, Rm 1144, Toronto ON M5T 1R8, Canada; Margaret A. Richter, M.D., Martin M. Antony, Ph.D., Laura J. Summerfeldt, Ph.D., Richard P. Swinson, M.D

Summary:

Objective: The relationship between impulsivity and obsessive compulsive disorder (OCD) has been debated in the literature in recent years. The authors (Hood et al, 1998) have previously found that impulsiveness in OCD does not significantly differ from other anxiety disorders. Given the recent interest in the role of subtypes in OCD, we explored the role of comorbid tic disorders and level of impulsivity in patients with the disorder.

Method: Forty-one outpatients who met DSM-IV criteria for OCD on a structured clinical interview (SCID-IV) completed the Barratt Impulsiveness Scale (BIS) to assess their current level of impulsivity, including the cognitive, motor, and non-planning subscales.

Results: Findings indicate that the presence of comorbid tics in OCD subjects was related to heightened impulsivity as compared with subjects without tics ($P<.026$, $t=-2.221$, $df=36$). This was primarily due to significant elevations on the cognitive subscale, OCD tic subjects ($p<.027$, $t=-2.214$, $df=39$).

Conclusions: This work supports the significance of tic vs. non-tic subtyping obsessive compulsive disorder and has implications in terms of etiological mechanisms and treatment. The relationship between impulsivity and OCD symptom severity in other comorbid spectrum disorders will also be discussed.

NR333 Tuesday, May 18, 3:00 p.m.-5:00 p.m.

Personality Dimensions in OCD Probands and Controls

Jack F. Samuels, Ph.D., Department of Psychiatry, Johns Hopkins, 600 North Wolfe Street, M4-181, Baltimore MD 21287; Gerald Nestadt, M.D., Oscar J. Bienvenu III, M.D., Paul T. Costa, Ph.D., Mark A. Riddle, M.D., Margaret A. Dees, B.A., Bernadette C. Goggins, M.D., Jennifer Hahn, Ph.D., David Wellen, Ph.D.

Summary:

Objective: To investigate the relationships between normal personality characteristics and obsessive compulsive disorder (OCD).

Method: As part of the Johns Hopkins OCD Family Study, 80 subjects with OCD were randomly selected from multiple outpatient treatment sites in the Baltimore-Washington area. Community controls, matched to the cases on race, sex, and age, were obtained by random-digit dialing. Cases and controls were administered the SADS-LA (modified for DSM-IV) by clinical psychologists and completed the NEO-PI on their own.

Results: OCD probands were significantly more neurotic ($p<0.001$) and more introverted ($p=0.007$) than control probands. No differences were found for other personality domain scores.

Conclusions: These preliminary findings demonstrate an association between OCD and specific personality domains. This may suggest that OCD develops in individuals who are vulnerable to the disorder because of specific underlying personality characteristics. Alternatively, certain personality traits and OCD symptoms may be part of the same underlying pychopathological spectrum. Investigating these characteristics in family members may illuminate these relationships further.

Funded by NIH grant MH50214.

NR334 Tuesday, May 18, 3:00 p.m.-5:00 p.m.

Predictors of Illness: Intrusiveness in Anxiety Disorders

Diana Koszycki, Ph.D., Sacru, Royal Ottawa Hospital, Pital/1145 Carling Avenue, Ottawa ON K1Z 7K4, Canada; Darryl Appleton, M.D., Jacques Bradwejn, M.D.

Summary:

Objective: Epidemiological studies indicate that the lifetime prevalence of anxiety disorders (ADs) is 25%. These disorders have been linked with impairment and disability in multiple spheres. A recent study demonstrated that patients with ADs experience significantly higher levels of illness intrusiveness (i.e., lifestyle disruptions attributable to an illness) compared with patients with chronic or life-threatening medical conditions. The factors that contribute to perceived illness intrusiveness in AD patients have not been investigated. In the present study we examined the relationship between illness intrusiveness and personality and illness severity in this population.

Method: The sample consisted of 74 patients with a DSM-IV AD: 36 panic disorder ± agoraphobia, 24 social phobia, 11 OCD, 3 GAD. Subjects completed the SCL-90, Anxiety Sensitivity Index, Eysenck Personality Questionnaire, trait form of the State-Trait Anxiety Inventory, and the Illness Intrusiveness Rating Scale (IIRS) as part of their assessment.

Results: Correlation analyses revealed a significant association between illness intrusiveness and anxiety sensitivity ($r=0.34$, $p<0.01$), extraversion ($r=-0.30$, $p<0.01$), neuroticism ($r=0.54$, $p<0.001$), trait anxiety ($r=0.70$, $p<0.001$), and illness severity as measured by the SCL-90 Global Severity Index ($r=0.69$, $p<0.001$).

Stepwise regression analysis revealed that the best predictor of illness intrusiveness was trait anxiety, accounting for 49% of the variance in IIRS scores ($p<0.001$) followed by illness severity, accounting for another 8% of the variance in IIRS scores ($p<0.001$).

Conclusion: There appears to be an important relationship between trait anxiety and illness intrusiveness in AD patients. The mechanism by which high trait anxiety contributes to greater interference in various life domains remains to be elucidated.

This research was supported in part by a research grant from the Medical Research Council of Canada.

NR335 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Safety of Sertraline in Long-Term OCD Treatment: Preliminary Results of a Multicenter Study

Wayne K. Goodman, M.D., Department of Psychiatry, University of Florida, 1600 SW Archer Road, Gainesville FL 32608; Peter D. Londborg, M.D., R. Bruce Lydiard, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D., Robert Wolkow, M.D.

Summary:

Objective: Obsessive-compulsive disorder (OCD) typically requires long-term treatment. The current study was undertaken to evaluate long-term efficacy and safety of sertraline treatment in OCD.

Methods: Outpatients with DSM-III-R OCD were treated for 52 weeks with single-blind sertraline. Responders were randomized to 28 weeks of double-blind, placebo-controlled treatment. Safety was evaluated by adverse events, laboratory test results, vital signs, and ECG.

Results: 649 subjects from 21 U.S. centers entered the study; at week 52, 224 subjects were randomized, 110 to sertraline and 114 to placebo. In this 80-week study, the most common adverse events were headache, insomnia, nausea, somnolence, and diarrhea. Most of the adverse events were mild to moderate in severity. Adverse events tended to occur early in treatment with occurrence of both new and previously reported adverse events markedly decreased with increasing duration of treatment. Long-term sertraline treatment did not result in any clinically significant changes in laboratory parameters, vital signs and ECG. Twenty-one percent of subjects discontinued the study due to adverse events or laboratory abnormalities in the single-blind phase; 5% of sertraline subjects vs. 11% of placebo subjects discontinued for these reasons in the double-blind phase.

Conclusion: This study demonstrated the long-term safety and tolerability of sertraline during 80-week treatment in outpatients with OCD. The efficacy of long-term sertraline treatment will also be reported.

NR336 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Six-Month Evaluation of Three Dose Levels of Venlafaxine Extended-Released in Nondepressed Outpatients with GAD

David Hackett, M.Sc., CR&D, Wyeth Ayerst, 92 Ave Du General De Gaulle, Paris La Defense 92031, France; Virginia Parks, B.Sc., Eliseo Salinas, M.D.

Summary:

Objective: To evaluate the short- and long-term efficacy and safety of three different fixed doses of venlafaxine extended-release (XR) in outpatients with generalized anxiety disorder (GAD).

Method: 544 nondepressed outpatients who met the DSM-IV criteria for GAD with a minimum baseline score of 20 on the Hamilton Psychiatric Rating Scale for Anxiety (HAM-A) were allocated, in a double-blind randomized manner, one of four oral treatments over a 24-week period: Venlafaxine XR 37.5, 75, or 150 mg/day or placebo. Primary efficacy parameters included the HAM-A total score, HAM-A psychic anxiety factor, and the Clinical Global Impressions (CGI) improvement rating. Patients were assessed on the Social Adjustment Rating Scale (SAM).

Results: 344 patients completed the study. Significant improvements on primary and secondary rating scales for venlafaxine XR over placebo were observed from week 1 (150 mg) and week 2 (75 mg). These improvements over placebo were observed continuously up to the assessment at week 24. A dose response relationship was apparent. The two higher doses of venlafaxine XR also appeared to improve social adjustment.

Conclusion: Venlafaxine XR administered in a once-a-day regimen Is a rapid, highly effective, and safe anxiolytic with both short- and long-term (six month) efficacy.

NR337 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Safety of Sertraline in Long-Term Treatment in Panic Disorder: Preliminary Results of a Multicenter Study

Mark H. Rapaport, M.D., Department of Psychiatry, UCSD School of Medicine, 8950 Villa Jolla Drive, #2243, La Jolla CA 92037; Robert B. Pohl, M.D., Robert Wolkow, M.D., Arkady Rubin, Ph.D., Elizabeth Hackett, Ph.D.

Summary:

Objective: Panic disorder often requires long-term treatment. Sertraline has been proven effective in several acute studies of panic disorder, with or without agoraphobia. The current study was undertaken to evaluate long-term efficacy and safety of sertraline treatment in panic disorder.

Methods: Outpatients with DSM-III-R panic disorder who had completed one of three double-blind, placebo-controlled 10-week studies were treated for 52 weeks with open-label sertraline. Responders were randomized to 28 weeks of double-blind, placebo-controlled treatment. Safety was evaluated by adverse events, laboratory test results, vital signs, and ECG.

Results: 398 subjects from 31 U.S. centers entered the study; at week 52, 183 subjects were randomized, 93 to sertraline and 90 to placebo. In this 80-week study, the most common adverse events were headache, insomnia, malaise, upper respiratory track infection, and diarrhea. Most of the adverse events were mild to moderate in severity. The adverse events tended to occur early in treatment with occurrence of both new and previously reported adverse events markedly decreased with increasing duration of treatment. Long-term sertraline treatment did not result in any clinically significant changes in laboratory parameters, vital signs and ECG. Eleven percent of subjects discontinued the study due to adverse events or laboratory abnormalities in the open-label phase; 3% of sertraline subjects vs. 10% of placebo subjects discontinued for these reasons in the double-blind phase.

Conclusion: In this study, the long-term safety and tolerability of sertraline was demonstrated during 80-week treatment in outpatients with panic disorder. The efficacy of long-term sertraline treatment will also be reported.

NR338 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Alcoholism and Immunity: Role of Liver Disease

Steven J. Schleifer, M.D., Department of Psychiatry, New Jersey

Medical School, 185 South Orange Avenue, Newark NJ 07103; Tonya S. Benton, M.A., Steven E. Keller, Ph.D.

Summary:

Objective: Altered immunity is commonly associated with alcoholism; however, few studies examined alcoholism per se compared with alcoholism's medical sequelae. Comparing otherwise healthy inner-city alcoholics with community controls, we previously found few immune differences. To explore liver abnormality effects, alcoholics with liver disease (ALDs) (excluded from earlier analyses) were compared with the alcoholics without liver disease (AWLDs) and the nonabusing comparison sample (NCS).

Method: Twelve ALDs (ages 22-50, two female), 44 AWLDs (ages 18-69; 15 female) meeting SCID DSM-III-R for alcohol dependence and 34 medically healthy NCSs (ages 20-63, 22 female) were compared (ANOVA) on lymphocyte subsets, mitogen responses, NK activity, and granulocytic phagocytosis and killing; 88% were African American.

Results: Post-hoc t-tests revealed that ALDs had decreased CD45RA+ inducer-suppressor/naive cells ($p<.02$), decreased activated T-cells ($p<.04$), and increased monocytes ($p<.01$) compared with NCSs. AWLDs did not differ from NCSs on any measures, but had lower CD56+ NK cells than ALDs ($p<.02$). ConA, PHA, PWM, NK activity, and granulocyte functions did not differ across groups. ALDs had higher alcohol consumption, accounting statistically for the decreased activated T-cells only.

Conclusions: While alcoholism may not be an independent risk factor, alcoholism accompanied by liver abnormalities is associated with immune changes. Age, gender, alcohol intake, and nutrition effects require consideration.

Supported by NIAAA R01AA08195

NR339 Tuesday, May 18, 3:00 P.m.-5:00 p.m. Effects of Assertive Outreach in the Dually Diagnosed Patient

Christian R. Miner, Ph.D., Department of Psychiatry, Beth Israel Medical Center, First Avenue at 16th St, 5F, New York NY 10003; Richard N. Rosenthal, M.D., David J. Hellerstein, M.D.

Summary:

Overview: Patients with schizophrenia and comorbid substance use disorders have been well described as difficult to treat and to retain in treatment. In a randomized trial with 54 volunteers with comorbid SCID/DSM-IV schizophrenia and substance use disorder, a manualized control treatment integrating psychiatric and substance abuse outpatient services (COPAD) was compared with the integrated treatment plus Targeted Assertive Outreach (COPAD+TAO).

Method: Repeated measures ANCOVA was used to evaluate group differences in positive symptom severity (SAPS) and substance use severity (ASI-SUS) assessed at 0, 4, 8, and 12 months. The direct contribution of TAO outreach visits to changes in SUS was modeled via Generalized Estimating Equations (GEE).

Results: Subjects in both groups decreased their substance use severity over 12 months, but COPAD+TAO subjects showed less problem severity [$F=4.37$; df (1,33), $p < .05$]. The group effect for psychiatric symptom severity was also significant [$F= 4.03$; ($df= 1,35$), $p < .05$] as COPAD+TAO subjects show nearly a 50% reduction in SAPS severity. The greatest gains by experimental subjects occur by four months and are sustained across 12 months. The GEE model for change in SUS [Wald $\chi^2 = 16.199$; $df= 31$. $p < .001$] indicates that with time in treatment held constant, as the number of outreach visits increases, substance use severity decreases.

Conclusion: TAO contributes significantly and substantially to psychiatric and substance use outcome over and above the salutary effects of integrated psychiatric and substance abuse treatment. The implications of the timing of TAO effects will be discussed.

Supported by NIDA DA09431.

NR340 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Who Responds to Visual Cocaine Cues? Relationship to Electroretinogram Amplitude

David A. Smelson, Psy.D., Department of Psychiatry, VA New Jersey, 151 Knollcroft Road, Lyons NJ 07939; Alec Roy, M.D., Monique Roy, M.D., Charles Engelhart, Ph.D., Douglas M. Ziedonis, M.D., Jill Williams, M.D., Miklos F. Losonczy, M.D.

Summary:

Background: Dopamine, the neurotransmitter involved in the rewarding effects of cocaine (Markou et al, 1993) is present in the retina, where it plays a role in the amplitude of retinal responses to light, as evidenced by the electroretinogram (ERG) (Roy et al, 1997). We previously reported that withdrawn cocaine-dependent patients had a reduced ERG blue-cone response (Roy et al, 1997). This subgroup also showed significantly more self-report cocaine craving (Roy et al, 1996; Smelson et al, 1998). Therefore, we wanted to examine whether patients with blunted blue-cone ERG amplitude (< 0.5 microvolts) were more likely to respond to laboratory-based cocaine cues with increased craving than patients without the blunted blue-cone ERG amplitude.

Methods: Withdrawn cocaine-dependent patients (N=14) completed an ERG, a cocaine-craving questionnaire at baseline, and following cue exposure.

Results: The main effect of ERG and time were nonsignificant ($F=1.31$ & .42, respectively, $p >.05$) while the ERG response by time interaction was statistically significant ($F=6.85$ $p=.02$).

Discussion: Future research could focus on whether patients with blunted blue-cone ERG amplitude represent a subgroup with a marked biologic dysregulation and a heightened physiological craving response in which psychopharmacologic agents may be efficacious.

NR341 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Alliance and Treatment Engagement in Substance-Abusing Patients with Schizophrenia

Richard N. Rosenthal, M.D., Department of Psychiatry, Beth Israel Medical Center, First Avenue at 16th St, 9F, New York NY 10003; Christian R. Miner, Ph.D., David J. Hellerstein, M.D., J. Christopher Muran, Ph.D.

Summary:

Overview: Although treatment engagement and retention in severely mentally ill patients with substance use disorders is a major clinical issue, research has rarely addressed the therapeutic alliance in this population. We examined changes in patients' therapeutic alliance over time in an effort to identify "active ingredients" of the treatment process in a substudy of a randomized trial comparing twice-weekly manualized outpatient group therapy (COPAD) with group therapy plus community outreach visits (COPAD+TAO).

Method: Patients (N=35) in four ongoing treatment groups (two experimental, two control) completed the Group Climate

Questionnaire [GCQ] (MacKenzie, 1983) following each group therapy session for 30 sessions. Individual Treatment Engagement subscale scores were computed, and the means for each session were computed by Group. A simple Generalized Estimating Equations model for repeated measures tested the hypothesis that over time, patients' Engagement scores vary by treatment condition. Group members varied by seniority in the treatment protocol, so time-in-treatment served as a covariate.

Results: Seniority in treatment does not affect Engagement but the Group distinction does. With time-in-treatment held constant, patients receiving Targeted Assertive Outreach demonstrate Engagement scores that, on average, exceed those of control patients by 3.33 subscale points ($z = 2.26$, $p < .01$).

Discussion: Targeted Assertive Outreach enhances the treatment alliance in group psychotherapy. Interactions between Patient Engagement and Therapist Engagement will be explored and a formulation for using GCQ data to predict treatment outcome will be presented.

Supported by NIDA DA 09431.

NR342 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Adverse Childhood Experiences and Alcoholism and Depression Among Adult Children of Alcoholics

Robert F. Anda, M.D., Cardiovascular, CDC, 4770 Buford Highway NE MS K-47, Atlanta GA 30341; Vincent J. Felitti, M.D., Daniel P. Chapman, Ph.D., Wayne H. Giles, M.D., Janet B. Croft, Ph.D., David F. Williamson, Ph.D., Dale Nordenberg, M.D.

Summary:

Previous research suggests adult children of alcoholics (ACOAs) are at increased risk for alcoholism and depression and possible genetic bases for these associations have been proposed. Yet, children with alcoholic parents may be more likely to be exposed to a variety of adverse childhood experiences (ACEs) that could also elevate their risk for psychopathology in adulthood. To investigate this issue, we analyzed data from 9,346 adults (mean age=56.7 years) who received standardized medical evaluations at Kaiser-Permanente Health Appraisal Clinic in San Diego. Participants provided information about their personal and family history of alcoholism and depression and their childhood exposure to each of nine ACEs, including various types of abuse and domestic violence. Prevalences of parental alcoholism (20%) and a personal history of depression (23%) were high; 6% reported personal alcoholism. Parental alcoholism was strongly associated with each ACE ($p<.0001$) and the number of ACEs ($p<.0001$). The prevalence of alcoholism was highest among persons with alcoholic parentage and > 3 ACEs, compared with persons with neither exposure (17.9% vs. 2.8%). In contrast, while a dose-response relationship emerged between the number of ACEs reported and a personal history of depression ($p <.0001$), there was no effect of parental alcoholism on the risk of depression.

NR343 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Psychological Responses to Meta-Chloropiperazine in Cocaine Dependence

Ashwin A. Patkar, M.D., Department of Psychiatry, Thomas Jefferson University, 1201 Chestnut Street, Ste 1519, Philadelphia PA 19107; Edward Gottheil, M.D., Wade H. Berrettini, M.D., Robert Sterling, Ph.D., Stephen Weinstein, Ph.D., Ronald D. Serota, M.D.

Summary:

Objective: Research indicates that serotonergic (5-HT) mechanisms may modulate the central effects of cocaine. We investigated whether psychological responses to the serotonergic agonist meta-chloropiperazine (m-CPP) differed between a) cocaine dependent (CD) subjects and controls, and b) CD subjects with high compulsive drug taking scores and those with low scores.

Method: Forty-nine African-American (AA) CD (DSM-IV) subjects and 17 AA drug-free controls were administered 0.5 mg/kg of body weight of oral m-CPP. Measures of psychological responses were obtained using a six-item scale at baseline and at 30-minute intervals for 180 minutes following m-CPP administration. Compulsive drug taking was assessed by the Obsessive-Compulsive Drug Scale (OCDS) and the CD subjects were divided into high/low groups based on the mean of OCDS scores. ANOVA and post-hoc tests were used for data analysis.

Results: There were no significant differences in psychological effects of m-CPP between CD subjects as a group and controls. Interestingly, CD subjects with high OCDS scores (n=21) reported significantly more intense feeling of "high" compared with subjects with low scores (n=28) at 60 ($p<0.01$), 120 ($p<0.01$), 150 ($p<0.05$), and 180 minutes ($p<0.05$) after m-CPP. Furthermore, the high OCDS subgroup reported significantly more reduction in craving compared with the low OCDS subgroup at 120 and 150 minutes ($p<0.05$) but not at 60 of 180 minutes. Feelings of anxiety, irritability, and depression were not effected.

Conclusion: The results indicated that although CD individuals did not differ from controls in their psychological responses to m-CPP, a proportion of CD subjects, in particular those with more compulsive drug taking, reported a more intense high and a greater reduction in craving following administration of a 5HT agonist. This suggests that serotonergic systems may mediate subjective effects of cocaine such as craving and euphoria in a subset of CD individuals.

Funded by NIDA grant # DA340-02.

NR344 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Study of Polymorphisms of Alcohol Dehydrogenase and Aldehyde Dehydrogenase Genes in Type I and Type II Alcoholics

Ihn-Geun Choi, M.D., Department of Psychiatry, Hallym University, 94-200 Youngdungpo-Dong, Seoul 150, Korea; Eun-Kee Chung, M.D., Leen Kim, M.D., Dong-Yul Oh, M.D., Yu-Sang Lee, M.D., Gil-Sook Kim, M.D., Young-Gyu Chai, Ph.D.

Summary:

The authors investigated the polymorphisms of ADH2, ADH3, and ALDH2 genes by comparing the distribution of genotypes and alleles between alcohol dependence patients and normal control group, and between Cloninger's Type I and Type II alcoholism patients.

The subjects were 72 alcohol dependence patients (48 Type I alcoholism, 24 Type II alcoholism) and 38 normal controls that had been selected by subjects' history, DSM-IV diagnostic criteria, CAGE, and alcohol use identification test (AUDIT).

The results were as follows:

(1) The frequency of ALDH2*1 allele was higher in Type I and Type II alcoholism patients than in normal controls.

(2) The frequencies of ADH2*2 and ADH3*1 alleles were higher in Type I alcoholism patients and normal controls than in Type II alcoholism.

(3) The frequencies of ADH2 and ADH3 alleles were not differ-

ent between Type I alcoholism patients and normal controls, and the allele frequency of ALDH2 was not differ ent between Type I and Type II alcoholism patients. According to the above results, the ALDH2 allele may discrimate alcohol dependence patients from normal controls, and the ADH2 and ADH3 alleles may discrimate Type I alcoholism patients from Type II alcoholism patients.

NR345 Tuesday, May 1-8, 3:00 p.m.-5:00 p.m.
Drinking Relapse in Male Alcoholics During Treatment with Naltrexone, Lithium or Carbamazepine

Janusz K. Rybakowski, M.D., Department of Psychiatry, University of Medical Sciences, UL Szpitalna 27/33, Poznan 60-572, Poland; Marcin Ziolkowski, M.D., Joseph R. Volpicelli, M.D.

Summary:

Predictors of drinking relapse were investigated in 160 male alcoholic patients who participated in a double-blind, placebo-controlled study of treatment with naltrexone, lithium, or carbarnazepine. Patients were treated for four weeks as inpatients and 12 weeks as outpatients with obligatory participation in educational sessions during hospitalization and elective afterwards. Drinking relapses were observed in 44 patients, with no significant differences between treatment groups. Among 40 patients treated with naltrexone, such predictors of relapse were revealed as poor compliance with treatment, no participation in psychotherapy after hospitalization, and higher amount of alcohol consumption before admission. Among 39 subjects treated with lithium, predictors of relapse included poor compliance with treatment, no participation in psychotherapy after hospitalization, and lower age (below 40 years). In the carbamazepine group (40 subjects), predictors of relapse included poor compliance, no participation in psychotherapy session after hospitalization, higher age (above 40 years), and no family history of alcoholism. In the placebo group (41 subjects), such predictors included poor compliance, lack of participation in psychotherapy after hospitalization, and lower level of education. It is concluded that two universal predictors of drinking relapses during combined pharmacotherapy and psychotherapy include poor compliance with treatment and lack of participation in psychotherapeutic sessions.

NR346 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
The Association Between Substance Use and Medical Problems

Eric Weintraub, M.D., Department of Psychiatry, University of Maryland, 22 South Greene Street/Box 349, Baltimore MD 21201; Lisa B. Dixon, M.D., Jeannette Johnson, Ph.D., Lyle B. Forehand, Jr.

Summary:

Objectives: This study attempts to identify the relationships between types of substance use and types of medical problems on an inpatient substance abuse consultation service.

Methods: Records of all consultations performed from 1994 to 1998 that included demographic characteristics, presenting medical problem, type of substance use, and route of administration were analyzed. A total of 5,225 complete records were available.

Results: IV cocaine users (65%) were more likely to be admitted to the hospital for infection than were noncocaine users, cocaine users who inhale (23%), and intranasal (27%) cocaine users (p<.001). IV cocaine users were less likely than the other groups to be admitted for trauma (p<.001). Heroin use followed a similar pattern. Both PCP users and marijuana users were significantly more likely to be admitted to the hospital for trauma (p<.001) and less likely to be admitted for infection (p<.001) than were non-PCP users and non-marijuana users, respectively.

Conclusion: The linkage of intravenous drug use with infection is not surprising and suggests that the medical consequences of intravenous drug use are direct and primary. In contrast, the medical consequences of marijuana and PCP use appear to be secondary to the impact of behaviors relating to intoxication (i.e., trauma).

NR347 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Effects of Subtype Opioid Receptor Antagonists on Alcohol Intake in C57BL/6 Mice

Sung-Gon Kim, M.D., Department of Psychiatry, Pusan University, 1-ga 10, Amidong, Seogu, Pusan 602739, Korea; Je-Min Park, M.D., Myung-Jung Kim, M.D.

Summary:

Objective: To determine which subtype of opioid receptor, μ- or δ-, is involved in the alcohol intake behavior in C57BL/6 mice.

Method: We assessed the effects of the μ-opioid receptor antagonist, CTOP, and the δ-opioid receptor antagonist, naltrindole, on two-hour alcohol, 22-hour water, and 24-hour food intakes in C57BL/6 mice.

Results: 1) Pretreatment of saline did not cause any change in two-hour alcohol, 22-hour water, and 24-hour food intakes. 2) Significant reduction in two-hour alcohol intake resulted from pretreatment of CTOP in both 0.1 mg/kg and 1.0 mg/kg doses; 22-hour water intake was not changed by a pretreatment of CTOP in either dosage groups. 24-hour food intake was significantly reduced by pretreatment of CTOP 1.0 mg/kg, but not by CTOP 0.1 mg/kg. 3) Two-hour alcohol intake was significantly reduced by pretreatment of naltrindole 10 mg/kg, but not by naltrindole 5 mg/kg; 22-hour water, and 24-hour food intakes were not changed by pretreatment of naltrindole in either dosage groups.

Conclusion: It is suggested that both μ- and δ-opioid receptors are involved in the reduction of alcohol intake in C57BL/6 mice.

NR348 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Central Serotonergic Activity and Insulin Sensitivity in Healthy Volunteers

Cyril Hoschl, M.D., Prague Psychiatric Center, Prague, Czechoslovakia 18103; Jiri Horacek, M.D., Mariana Kuzmiakova, M.D.

Summary:

The hypothesis that central serotonin (5-HT) activity is related to sensitivity of insulin receptors was tested. Nineteen healthy volunteers with normal basal glycemia and hemoglobin HbA1c were studied. The relationship between prolactin response (ΔPRL) to D-fenfluramine in a challenge test and metabolic clearance rates (MCR) of glucose during hyperinsulinemic-euglycemic clamp technique was evaluated. (ΔPRL) had been chosen as an indicator of a central 5-HT activity. Two levels of insulin concentration (70 mU/l [MCRsubmax] and 2000 mU/l [MCRmax]) were applied in a clamp, each for 120 minutes.

Negative correlation was found between (ΔPRL) and MCRsubmax ($r=-0.55$, $p<0.02$) and between (ΔPRL) and MCRmax ($r=-0.51$, $p<0.03$). We did not find any correlation between prolactin response to D-fenfluramine and body weight,

body mass index (BMI), or waist and hip circumference (WHR). The data support the hypothesis of a close relationship between 5-HT activity in the brain and peripheral sensitivity to insulin. The possible physiological mechanisms of this connection are discussed.

NR349 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Pilot Study of Acute and Long-Term Phenomena of Ultrarapid Opioid Detoxification

Igor Elman, M.D., Department of Psychiatry, Massachusetts General Hospital, 16 Blossom Street, Boston MA 02114; Michael N. D'Ambra, M.D., Sara Krause, B.A., Martha Kane, Ph.D., Robert Morris, S.T.M., Liam Tuffy, M.S.W., David R. Gastfriend, M.D.

Summary:

Objective: Ultrarapid oploid detoxification (URD) is an emerging treatment for opioid dependence. The goal of this pilot study was to examine acute hemodynamic and neuroendocrine effects and long-term outcome measures of URD.

Methods: Six patients with opioid dependence received naltrexone and participated in a twelve week course of outpatient psychotherapy.

Results: URD produced a trend toward elevated systolic ($p=0.07$) and diastolic ($p=0.07$) blood pressure and no significant changes in heart rate ($p=0.12$). Mean arterial concentration of ACTH increased by 276% ($p<0.01$) and cortisol by 1,901% ($p<0.05$). Five patients remained abstinent and compliant with naltrexone treatment twelve weeks later. Significant withdrawal persisted for four weeks, while self-reported ratings of craving for opioids were consistently rated "none" to "mild". Hamilton Rating Scales for depression and anxiety and Beck Depression Inventory scores declined significantly during a 12-week follow-up period and self-reported sleep and appetite unproved significantly after ten days.

Conclusions: URD produced marginal hemodynamic and robust neuroendocrine response. The finding that this procedure does not completely eliminate withdrawal symptoms has important implications for addictions treatment integration and policy. The fact that URD and subsequent treatment with naltrexone does dissociate craving from withdrawal has implications for behavioral pharmacology.

NR350 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Impact of Methadone Maintenance Treatment Upon Criminality Among Heroin Addicts

Chandresh Shah, M.D., VA Outpatient Clinic, University of Southern CA, 351 East Temple Street, Los Angeles CA 90012; Elbert Y. Kellem, Carl L. Wong, L.C.S.W.

Summary:

Crime is a major component of life of heroin addicts. It is often directly or indirectly related to their addictive disorder. Thus, any change in extent of criminality among the addicts in treatment can be a measure of outcome of that treatment. 82 randomly selected patients with a minimum 12 months of methadone maintenance treatment (MMT) were interviewed. There were 79 male patients (age = 51.46±9.99 years) and three female patients (age 46.19±7.24 years) who had been in MMT for 3.84±2.37 years. 79.27% of patients had a criminal record at the time of admission. Of these patients, 92.31% had drug charges during pre-treatment period. The prevalence dropped to 4.62% during MMT ($p<.005$). The prevalence of shoplifting, the second commonest crime, was also reduced from 40.00% to 1.54% during MMT ($p<.001$). Similarly the prevalence of parole violation dropped from 23.08% to 1.54% during MMT ($p<.05$). The reduction in prevalence of forgery and burglary was insignificant. In spite of limitation of relying solely on self-reporting of commitment of crime, this study shows reduction in criminality among heroin addicts receiving MMT. Thus the MMT helps the individual and society, as well.

NR351 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Suicide Attempts Among Substance Abusers

Kristinn Tomasson, M.D., Department of Psychiatry, University Hospital, Eiriksgotu, Reykjavik 101, Iceland

Summary:

Objective: To study how common a history of suicide attempts is among patients attending a day treatment in Iceland for alcoholism and other substance abuse, and to assess how such correlates with demographics, psychiatric comorbidity, and consequences related to abuse.

Methods: In 1996, 142 consecutive patients were interviewed with the CIDI Interview to assign DSM-III-R diagnoses and with an alcohol history instrument including questions on suicide attempts.

Results: A total of 44 patients had a history of suicide attempts. Two thirds of these had occurred while the patients were intoxicated. Those who had attempted suicide were younger than those who had not, mean age 30 years vs. 36 years, and had an earlier age at onset of their alcoholism (19 years vs. 25 years). Patients with affective disorders or panic/agoraphobia had more often attempted suicide (41% and 43%) while polysubstance abusers did not differ from the group as a whole (34%). Suicide attempters had slightly more often a history of broken relationships, accidents and fights than nonattempters did.

Conclusion: Suicide prevention must be stressed especially among those with early age at onset and history of comorbidity, recognizing that nearly a third of suicide attempts occur while the patients are not intoxicated.

NR352 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Naltrexone in Alcoholism Treatment: Patient Efficacy and Compliance

Pekka Heinala, M.D., Finnish Foun. for Alcohol Study, Agricolankatu 5 A 20, Fin-00530 Helsinki, Finland; Hannu Alho, M.D., Kimmo Kuoppasalmi, M.D., Jouko K. Lonnqvist, M.D., David Sinclair, Ph.D., Kalervo Kiianmaa, Ph.D.

Summary:

In a double-blind, placebo-controlled study, 121 alcohol dependent men (71%) and women (29%) were randomly assigned to receive naltrexone hydrochloride (50 mg) or placebo for 32 weeks in a design applicable in primary care settings. Patients were instructed to take the investigational medication on a daily basis during the first 12 weeks and on a need basis when the urge to drink alcohol was most compelling during the following 20 weeks. In addition, the patients participated in either supportive or cognitive group psychotherapy on four separate occasions during the first 12 weeks. Thereafter, the subjects were followed at about four-week intervals either by visit at the investigator's office or by telephone calls. The drop-out rate for all subjects was 16.5% during the first 12 week period and approximately twice that level by the end of the study. A high proportion of patients relapsed to heavy drinking (five or more drinks on an occasion or

five or more drinking days within one week) during the induction of the treatment, especially during the first week. In addition to relapse rates, other indicators of treatment efficacy such as the total amount of alcohol consumed, quality of life measures, and confirmatory laboratory results will be presented and discussed.

This study was funded partially by the Finnish Foundation for Alcohol Studies.

NR353 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Acceptance of a Smoking Ban by Alcoholic Patients

Daniele Zullino, M.D., Addictions, University Department, Hospital De Cery, Prilly-Lausanne 1008, Switzerland

Summary:

Objective: Smoking bans in Swiss hospitals are less common than in the USA. The objective of the study was to determine the acceptance of a smoking ban in an alcohol dependence clinic.

Method: In a semistructured interview, 53 alcohol and nicotine dependent patients entering an alcohol withdrawal program were asked about their acceptance of a potential smoking ban on the ward.

Results: 17 (32,1%) said a smoking ban could encourage them to stop smoking and 30 (56.6%) said it could help them to stop. 15; (28.3%) would refuse entering the clinic in case of a non-smoking policy, but 10 of them would accept the smoking ban if nicotine substitution therapy was available.

Conclusion: Against common beliefs, a smoking ban in an alcohol dependence clinic would be well accepted by Swiss patients. In order to implement non-smoking policies in Swiss alcohol clinics caregivers need to be convinced of their utility and feasibility. The American experience, which demonstrated increased smoking cessation rates without jeopardizing the therapeutic success of alcohol withdrawal, will be an important argument in future discussions.

NR354 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Some Correlates of Drug Use in a County Correctional Facility: Implication for Prevention and Other Services

Samuel O. Okpaku, M.D., Department of Psychiatry, Vanderbilt University, 1916 Patterson Street, Ste 604, Nashville TN 37203; Celia Larson, Ph.D.

Summary:

Substance abuse is a national problem that is linked to numerous forms of morbidity and mortality. Considerable evidence has been accumulated over the years that drugs and crime are related. A study, was conducted among a sample of 430 incarcerated persons at a county correctional facility in order to determine the extent of self-reported substance abuse, specifically crack-cocaine use, and the criminal history of users and non-users. As individuals were classified for incarceration, they were asked a series of questions regarding drug use, while criminal history information was obtained from the police department database.

Results from this study indicate that the majority of inmates reported using drugs, with half being crack cocaine users. Comparisons made between drug users and nonusers demonstrated that nonusers had significantly fewer arrests than users and that the majority of crimes were committed by drug users and crack cocaine users with daily habits. Additionally, drug users and crack cocaine users appeared more likely to have suicidal ideation or suicidal attempts compared to nonusers. Although a prevalence of drug use was indicated, self-reports from inmates indicated a lack in the availability of drug treatment.

NR355 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Nicotine Replacement Methods on a Psychiatric Unit

Dale A. D'Mello, M.D., Department of Psychiatry, Michigan State University, 1210 W Saginaw/St. Lawrence, Lansing MI 48915; Govardhana R. Bandlamudi, M.D.

Summary:

Patients with psychiatric illness smoke more heavily than others in the community. They have more difficulty quitting, and have more withdrawal symptoms than others.

Objective: The purpose of the present study was to examine the utilization of nicotine replacement methods in a population of psychiatric patients.

Method: In a naturalistic retrospective review the authors examined the records of 57 patients who were hospitalized on a smoke-free psychiatric unit. They abstracted the frequency of utilization of nicotine replacement. The rate of utilization was considered to be a ratio of the number of days utilized to the number of days prescribed.

Results: Thirty-nine patients used the transdermal patch, 27 patients used the inhaler, three patients used nicotine gum, and two patients used the nasal spray. The rate of utilization of the nicotine inhaler (64%) exceeded that of the transdermal nicotine patch (28%) ($t=4.6$, $p<0.0001$).

Conclusion: The hospitalization of smokers with mental illness in smoke-free psychiatric units often leads to further behavioral deterioration. The patients in the present study demonstrated a definite preference for the nicotine inhaler over the transdermal patch. Possible clinical and pathophysiological implications of this finding will be presented.

NR356 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Efficacy of Piracetam in the Treatment of Heroin Addiction

Haroon R. Chaudhry, M.D., Postgraduate Medical Institute, 83 Shah Jamal Colony, Lahore 54600, Pakistan; Najma Najam, Ph.D., Muhammad R. Chaudhry, M.D.

Summary:

This double-blind placebo-controlled study was designed to evaluate the efficacy of piracetam on the intensity of heroin withdrawal symptoms and on the duration of the withdrawal period. This study included two groups of heroin addicts, each containing 20 subjects. One group received piracetam in addition to symptomatic treatment and the other group was treated without piracetam. Both groups were homogeneous in age, sex, heroin intake, duration of intake, physical status and social status of the patients. Evaluation of withdrawal syndrome was performed by means of a rating scale including 14 parameters. Special attention was given to aches and pains, fatigue, craving for heroin, and drowsiness. Craving and drowsiness disappeared more rapidly in the piracetam treatment group than in the control group. No side effects were reported in the piracetam group.

NR357 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Total Serum Cholesterol in Relation to Psychological Parameters in Parasuicide

Malcolm R. Garland, M.B., Department of Psychiatry, St.

Vincents Hospital, Elm Park, Dublin 4, Ireland; Dara D. Hickey, M.B., Sean K. Cunningham, M.D., Aidan A. Corvan, M.B., Noel Walsh, M.D., Jeanette W. Golden, M.B.

Summary:

Objective: To examine the relationship between total serum cholesterol and psychological parameters in parasuicide patients and normal and psychiatric controls.

Subjects: One hundred consecutive patients (aged 16-65) admitted following parasuicide, matched with 100 normal and 100 psychiatric age- and sex-matched controls with no previous history of parasuicide.

Main Outcome Measures: Total serum cholesterol and self-rated scores for impulsivity, depression, suicidal intent, and life events.

Results: Cholesterol in the parasuicide population was significantly lower than in the normal control population ($p< 0.05$) and highly significantly lower ($p=0.001$) than in the psychiatric control. Across all groups there was a significant ($p=0.006$) negative correlation between cholesterol and self-reported scores of impulsivity. No correlation existed between cholesterol and scores for depression or suicide intent.

Conclusion: The data confirm previous reports of low cholesterol in parasuicide. This is the first reported investigation of the construct of impulsivity in relation to cholesterol. We hypothesize that the reported increased mortality in populations with low cholesterol may derive from increased suicide and accident rates consequent to increased tendencies to impulsivity in these populations.

NR358 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Risk Factors for Suicide in Emergency Psychiatry

Paul H. Desan, M.D., Department of Psychiatry, Yale University, VAMC 950 Campbell Ave, Stop 116A, West Haven CT 06516; Kathy M. Sanders, M.D.

Summary:

Background: Suicide risk assessment is an important role of the psychiatric service in the hospital emergency room. Studies of completed suicide have identified risk factors for suicide in general, but such factors may not be useful predictors in specific clinical contexts.

Methods: A flexible computer algorithm was used to match a database of all 13,909 Massachusetts residents seen by the psychiatry service at the Massachusetts General Hospital emergency room between 1992 and 1996 with state death records for the same years. A comparison of demographic and diagnostic factors in suicides and survivors was completed (a more detailed chart review is in progress).

Results: We identified 423 deaths (292 natural causes, 14 by accidents, nine by homicide, 41 by suicide, and 67 by unknown cause; 46.3% of the suicides and 41.8% of the unknown cause deaths occurred within 150 days of the last emergency room visit). We found that 68.3% of the suicides made only one emergency room visit. Of the major demographic and diagnostic factors, male gender (84.2% versus 63.0%, $p < .001$) and increased age (44.3 versus 36.5, $p = .04$) distinguished suicides from survivors.

Conclusion: Major suicide risk factors are of limited predictive value in emergency psychiatry in the urban hospital emergency room.

NR359 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
ECT and Inpatient Suicide

Verinder Sharma, M.B., Mood Disorder, London Psychiatric Hospital, 850 Highbury Avenue, London ON N6A 4H1, Canada

Summary:

Background: Electroconvulsive therapy (ECT) is recommended as an initial treatment for suicidal depression. Studies have shown a lower incidence of suicide among depressed patients treated with ECT when compared with other treatment modalities.

Method: A group of 45 psychiatric inpatients who committed suicide between 1969 and 1996 at the London Psychiatric Hospital was compared with a group matched for gender, age, and admission diagnosis of 45 hospitalized patients to examine the use of ECT during the last three months of hospitalization.

Results: No significant difference in the utilization of ECT was found in the two groups. The majority of patients who committed suicide following completion of ECT did so within a month, and those who declined to have further treatment killed themselves within a week of the last ECT.

Conclusions: We failed to demonstrate that ECT had prevented suicide in hospitalized patients. Future prospective studies with large sample sizes are needed to further examine this finding.

NR360 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Modern Family Structure and Suicidal Behavior

Francoise Chastang, M.D., Centre Psych Esquirol, C.H.R.U. Cote de Nacre, 14033 Caen, France; Patrice Rioux, M.D., Laurent Leclerc, M.D., Viviane Kovess, M.D., Edouard Zarifian, M.D.

Summary:

Although repeated attempts are considered as a predictive factor for later fatal suicide, research on this particular aspect of suicide has so far been relatively scare. To our knowledge, no study has analyzed the relationship between parasuicide and modern family structure.

Among 541 suicide attempters aged 15 or over who were examined in the Emergency Department of the University Hospital in Caen (France), self-attempters aged less than 30 (n= 223, female = 63%, males = 37%) have been compared with those over 30 (n=318, females=60%, males=40%). Early separations before the age of 12 (parental divorce, extra-familial fostering) were more frequent in self-attempters aged less than 30. Extra-familial fostering was found to be a risk factor for repeated suicide attempt in young self-attempters (adjusted OR=3,01 (1,13;8,07)). These results should be explained from a sociologic point of view. They suggest that the evolution of modern family structure has an influence on suicidal behavior, especially repeated suicide attempts.

NR361 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Family History of Intermittent Explosive Disorder

Emil F. Coccaro, M.D., Department of Psychiatry, MCP Hahnemann, 3200 Henry Avenue, Philadelphia PA 19129-1137

Summary:

Objective: To examine the familial aggregation of intermittent explosive disorder by research criteria (IED-IR) in probands with primary IED using a blinded, controlled, family history design.

Methods: A total of 160 first-degree relatives of 30 IED-IR probands meeting research criteria for and 81 first-degree rela-

tives of 20 control probands without IED-IR or any history of recurrent, problematic, impulsive aggression, were assessed in a blinded, comprehensive, family history study of IED-IR and other AxisI/II conditions (Klein et al., 1994). Inter-rater reliability for IED-IR in family members was excellent (k = .90). Final diagnoses were made by best estimate. Sensitivity/specificity for IED-IR using the family history (against the direct interview) method was acceptable to good (57%/81%).

Results: A significantly elevated morbid risk of IED-IR in the first-degree relatives of IED-IR probands was found compared with that in first-degree relatives of control probands (MR: 0.26 vs. 0.08, $p < .01$). Elevated morbid risk was not due to the possible comorbid presence of other disorders (i.e., antisocial/borderline personality disorder, major depression, alcohol/drug dependence) in the IED-IR probands or in their first-degree relatives.

Conclusion: IED-IR appears to be familial and not an epiphenomenon of other, possibly comorbid, psychiatric conditions. A direct family study of IED-IR is warranted.

NR362 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Knowledge and Attitudes of Trauma in Bosnians

Stevan M. Weine, M.D., Department of Psychiatry, University of Illinois, 1601 West Taylor, Rm. 423 South, Chicago IL 60612; Timothy Johnson, Ph.D., Nenad Brkic, M.D., Alma Ramic, B.S., Yasmina Kulauzovic, B.A., Ivan Pavkovic, M.D., Robin Mermelstein, Ph.D.

Summary:

Objectives: To develop a scale that measures aspects of the knowledge and addressibility concerning trauma mental health.

Methods: A 37-item questionnaire that was developed on the basis of several other related health knowledge and attitude instruments. The Knowledge Subscale presents items with varying levels of difficulty to address the degree to which the subject is informed about the conditions and treatments of PTSD and depression, and cost, availability, and accessibility of services. The Attitude Subscale and Family Talk Subscale explore other related dimensions. The scale was tested in a group of Bosnian refugees of both mental health service recipients and non-service recipients. We factor analyzed the Attitude Subscale and performed reliability assessments.

Results: The Knowledge Subscale (13 items) revealed an alpha of .76. Three factors were distinguished from the Attitude Subscale: Traditional (5 items; alpha of .65); Autonomous Control (3 items; alpha of .83); Family Control (4 items; alpha of .83). The Family Talk Subscale (12 items) had an alpha of .81. Comparing these factors revealed significant differences in only the Autonomous Control factor: those taking medications reported less sense of autonomous control than those who are not taking medications ($p< 001$). Several individual items from each of the subscales achieved significance: 5 from the Knowledge Subscale; 5 from the Attitudes Subscale; 4 from the Family Talk Subscale.

Conclusion: Knowledge and attitudes of trauma mental health can be systematically studied. There are measurable differences in knowledge and attitudes between service-recipients and non-service recipients. These constructs require further research but can be of use in developing and testing services and interventions.

NR363 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Refugees Presenting or Not Presenting for Services

Stevan M. Weine, M.D., Department of Psychiatry, University of Illinois, 1601 West Taylor, Rm 423 South, Chicago IL 60612; Lisa Razzano., Ph.D., Kenneth Miller, Ph.D., Alma Ramic, B.S., Nenad Brkic, M.D., Amer Smajkic, M.D., Zvezdana Djune Bijedic, M.D.

Summary:

Objective: To determine which refugees comes for services and which refugees do not come for services and with what characteristics.

Method: This pilot study involved research assessments of two groups of Bosnian refugees: Bosnians with PTSD who present for mental health services and Bosnians with PTSD who do not present for mental health services. We investigated the influence of multiple factors upon access to services.

Results: All 29 subjects (100%) met symptom criteria for PTSD diagnosis by DSM-IV as determined by the PTSD Symptom Scale. The second group with 41 non-service recipients were interviewed; 28 of those subjects (70%) met symptom criteria for PTSD diagnosis. Three demographic differences met or approached significance. The group that did not present for services was significantly more highly educated, more employed, and less likely to be on disability. The group that presented for services reported higher trauma exposure, higher PTSD symptom severity, higher depression symptom severity. Regarding health status, they had significant differences on all subscales of the SF-36, indicating poorer health status. Those presenting for services showed statistically significant higher ratings on Prior Mental Health Services; Family Prior Mental Health Services; Talk about Mental Health Services.

Conclusions: Those who are not seeking mental health services have a higher level of individual and familial resources from which to draw, whereas those who seek services are more vulnerable. Those who do not seek services have substantial symptom levels, but their self-concept appears to be less oriented about illness and help seeking.

NR364 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Child-on-Child Sexual Abuse: Play or Victimization?

Jon A. Shaw, M.D., Department of Psychiatry, University of Miami, 1611 NW 12th Avenue, Miami FL 33136; John Lewis, Ph.D., Rosemarie Rodriguez, B.A., James Rosado, M.S., Andrea Loeb, Ph.D.

Summary:

Objective: This study compares children under 16 years who have been sexually victimized by juveniles under 18 years (CC) with child victims of adults 18 years or older (CA).

Methodology: Children with a history of sexual abuse and their parent/guardian were evaluated at the Sexual Abuse Trauma Clinic (SAT). The parent/guardian completed a Demographic Data Form, the Brief Symptom Inventory (BSI), the Family Assessment Measure (FAM-P), and the Achenbach's Child Behavior Checklist (CBCL). The child completed the Trauma Symptom Checklist (TSC-C), and the Family Assessment Measure (FAM-C). The clinician completed the Parental Reaction to the Incest Disclosure Scale (PRIDS).

Results: No differences were found between the two groups as to the type of sexual abuse, penetration, or the use of force. The children victimized by juveniles were found to be younger, and were more likely to be males, who were abused at a school setting, home, or a relative's home by a sibling or a nonrelated male. Children victimized by juveniles were also more likely to be abused by a female. The average age of the juvenile perpetrator was 11.7 years compared with 36.7 years for the adult perpetrator. Both groups of child victims manifested comparably elevated

levels of emotional and behavioral problems both on parent and self-report measures. Parents of children who were sexually abused by adults experienced more emotional and behavioral distress and their children have a greater readiness to perceive their families as dysfunctional.

Conclusion: Children victimized by other children manifested comparably elevated levels of emotional and behavioral problems compared to those victimized by adults and deserve the full range of investigatory and therapeutic services available to those victimized by adults. Parent/guardians of children abused by adults experience more emotional and behavioral distress and their children perceive their families as more dysfunctional.

NR365 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Specificities of Symptoms in Male Adolescents Reporting Sexual Assault

Jean-Michel Darves-Bornoz, M.D., Clilnique Psychiatrique U, Hoptial Universitaire, Tours 37044, France; Marie Choquet, Ph.D., Sylvie Ledoux, Ph.D.

Summary:

Objective: Sexual assault of children and adolescents has become a frequent topic of study but there has been little research into the specific characteristics of the population of male victims.

Method: A French national survey representative of school-age adolescents in France enabled us to study 465 adolescents reporting sexual assault (121 boys, 344 girls; mean age 15.4, SD 2.5).

Results: Through logistic regressions, age being equal, girls were shown to be more frequently affected by certain medico-psychological symptoms: nightmares, multiple somatic complaints, and some items concerning mood disorders; on the other hand, behavioral symptoms were much more frequently expressed in boys in particular: repeated suicide attempts, running away, fits of violence and substance use.

Conclusion: Boys presenting these symptoms should be systematically questioned concerning a history of sexual assault.

NR366 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Patterns of Violence in Psychiatric Inpatients

Henry Glickman, Ph.D., Rockland Psychiatric, 140 Old Orangeburg Road, Orangeburg NY 10962; Leslie L. Citrome, M.D.

Summary:

*Objective:*To differentiate patients whose violent behavior is associated with current psychotic symptoms, from patients whose violent behavior is not accompanied by psychotic symptoms.

Method: A retrospective chart review, together with interviews of staff and patients, was conducted for 37 adult patients (32 with schizophrenia or schizoaffective disorder), identified as aggressors in at least one violent incident during the periods 7/1/95-6/17/96 and 10/1/96-3/31/97 at a state-operated hospital.

Results: Patients who were psychotic at the time of their assaults were more likely to have a history of delusions (P<.01) and odd behaviors (P<.05). Those with nonpsychotic violence were more likely to have co-occuring personality disorders (P<.01), low IQ (P<.01), history of violence before age 15 (P<.05), and uncontrollable impulses (P<.05). There were no differences found regarding the presence or absence of hallucinations. Patients judged more responsive to counseling were more likely to have a personality disorder (P<.01). High recidivists (more than three violent acts in the past year) were more likely to have a history of delusions (P<.01).

Conclusions: These findings point to different patterns of violence, which are likely to respond differently to biological and psychosocial interventions.

NR367 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Irritability and Aggression After Moderate to Severe Traumatic Brain Injury

Deborah L. Warden, M.D., Department of Neurology, Walter Reed Medical Center, 6825 Georgia Avenue, NW, Washington DC 20307; Elizabeth Martin, B.Sc., Mary Coyle, R.N.C., Karen A. Schwab, Ph.D., Mary M. Rosner, M.A., Jack Spector, Ph.D., Andres M. Salazar, M.D.

Summary:

Methods: 154 soldier patients with moderate-severe TBI received a comprehensive multidisciplinary evaluation including structured psychiatric interviews (*Present State Exam*-Wing 1974) at baseline, six, and 12 months. Premorbid factors hypothesized related to aggression included childhood loss, childhood abuse, Brown Goodwin score of lifetime aggression, alcohol abuse, prior TBI, prior psychiatric treatment, family history of psychiatric treatment or alcoholism, and attention deficit disorder. Concurrent factors studied included irritability, depression, generalized anxiety, panic attacks, headaches, social withdrawal, and tiredness.

Findings: Irritability and aggression were highly correlated at all time periods (Pearson's r=. 38 -.58 p<.01). Regression analysis demonstrated premorbid factors associated with aggression to be childhood loss, prior psychiatric illness, Brown-Goodwin score, history of prior TBI (all p<.05). Concurrent associated factors included irritability, depression, panic attacks, and headaches (p<.01)

Combining significant premorbid and current factors identified irritability, childhood loss, depression, prior psychiatric illness, headache, and panic attacks (all p<.005). Aggression was most often verbal, not physical, as previously reported (Grafman 1996). The relationship of aggression to work status at one year will be presented.

Conclusions: Both psychologic (e.g., childhood loss) and biologic factors (e.g., prior TBI) are associated with post TBI aggression. Baseline irritability predicts aggression at six months.

NR368 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Divalproex in PTSD Resulting from Sexual Abuse

Joseph F. Goldberg, M.D., Department of Psychiatry, Payne Whitney, 420 East 76th Street, New York NY 10021; Joyce E. Whiteside, B.A., Marylene Cloitre, Ph.D., Lori L. Davis, M.D., Han Hyemee, M.A.

Summary:

Objective: Divalproex has been successfully used to treat the symptoms of chronic Post-traumatic stress disorder (PTSD) in combat populations. The current research is the first to successfully use divalproex for PTSD symptoms in a civilian population.

Method: Subjects in the current, ongoing pilot study met DSM-IV criteria for PTSD, subsequent to childhood sexual abuse. To date, five of seven enrollees have completed an eight-week protocol of flexibly-dosed open-label divalproex monotherapy or augmentation of their existing pharmacology regimens (serotonin reuptake inhibitors and/or benzodiazepines).

Results: Preliminary results indicate a full or partial response in four of five (80%) of subjects (one full, three partial responders), at an average dose of 1375 mg/D (mean valproate serum level of 124.6 mmol/L). Among major PTSD symptom clusters, at least a 33% improvement from baseline was observed in intrusive thoughts (four of four patients), hyperarousal (one of four patients) and avoidance (three of four patients). Though no subjects met DSM-IV criteria for major depression at study entry, half the responders showed a decrease by at least one level in Beck Depression Inventory (BDI) severity ratings.

Conclusion: The findings suggest that divalproex is a generally well tolerated, potentially effective pharmacologic strategy for noncombat-related PTSD in survivors of sexual abuse.

NR369 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Objective Measurement of Ritalin Response in ADHD Boys

Ann Polcari, R.N., Department of Psychiatry, McLean Hospital, 115 Mill Street, Belmont MA 02178; Martin H. Teicher, M.D., Mary Foley, R.N., Cynthia McGreenery

Summary:

Objective: The aim of this study was to replicate a study by Teicher, et al (1996) which showed profound differences in the movement patterns of ADHD children compared with normal controls, and to evaluate the effectiveness of these measures in assessing the response of boys with ADHD to a test dose of Ritalin.

Method: Thirteen control boys (age 10.6±1.6) and 60 ADHD-C boys (age 10.6±1.1) were diagnosed by K-SADS-E and tested. The ADHD-C group was given a single dose of Ritalin (0.4mg/kg body weight) and retested two hours later. Attention was measured using a revised computerized attention task (CPT). Movement was measured using an infrared motion analysis system (MAS) that tracked the motion of a reflective marker worn on the head, 50 times per second for 15 minutes.

Results: Control subjects performed significantly better than ADHD subjects on CPT accuracy ($p=.002$), commission errors ($p=.04$), and response variability ($p=.04$); however, unexpectedly the ADHD group had faster latency scores ($p<.0001$). ADHD boys moved more incessantly ($p<.0001$), more often ($p=.001$), in greater area ($p<.0001$), with less complexity ($p=.01$). ADHD subject scores improved significantly post Ritalin on all measures ($p<.0001$).

Conclusions: The MAS with CPT provided objective data to clearly distinguish ADHD-C boys from normal controls and provided quick quantitative data to assess methylphenidate response to a probe dose given in the office.

Funded by Copley Pharmaceutical.

NR370 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Preliminary Evidence for Circadian Dysregulation in Children with Autism/Pervasive Development Disorder

Carryl P. Navalta, Ph.D., Department of Psychiatry, McLean Hospital, 115 Mill Street, Belmont MA 02478; Martin H. Teicher, M.D., Cynthia McGreenery

Summary:

Activity monitoring of an initial, small group of children with autism/PDD revealed circadian rest-activity disturbances similar to children with mood disorders.

Objective: An ongoing study was initiated to gather activity data on a large number of children with autism/PDD and ascertain the extent of these disturbances.

Method: Eleven subjects (nine males, two females; mean age = three years, six months) were evaluated with belt-worn actigraphs for at least 72 hours. Data were compared with a normative sample and analyzed by software written by one of the authors (Teicher & Barber, 1990).

Results: Circadian dysregulation was observed in subjects as indexed by a 1.2-hour phase delay ($F[1,20] = 32.2$, $p<.00002$), blunted relative circadian, amplitude ($F[1,20] = 23.57$, $p<.0002$), and a prominent 12-hour hemicircadian oscillation ($F[1,20]$ 5.9, $p<.03$). Subjects also appeared less entrained than controls ($F[1,20] = 22.37$, $p < .0002$).

Conclusions: These preliminary findings suggest that circadian dysregulation may be a significant aspect of children with autism/PDD.

Partially funded by an NIMH Underrepresented Minority Investigator Research Supplement to CPN.

NR371 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Resistance of Thyroid Hormone Transgenic Mice: An Animal Model for ADHD

Hermant K. Pandey, M.D., Department of Psychiatry, VA Medical Center, 10 North Greene Street, Baltimore MD 21201; Kia Greene, Emmeline Edwards, Ph.D., Mangla S. Gulati, M.D., Sui-Foh Yu, Ph.D., Louis J. Detolla, Ph.D., Peter Hauser, M.D.

Summary:

Resistance to thyroid hormone (RTH) is a dominantly inherited syndrome caused by mutations in thyroid receptor beta gene (TRβ). RTH disrupts TH action and regulation during fetal life, infancy, and early childhood. The vast majority of children with RTH develop attention deficit–hyperactivity disorder (ADHD). We have successfully developed a transgenic mouse that expresses the naturally occurring human TRβ gene mutation Q340H and previously reported significantly increased locomotor activity as compared with wild type mice. The primary purpose of this study is to characterize memory and learning in our transgenic and control mice. Elevated plus maze (a measure of anxiety), spontaneous alteration (a spatial learning test), and Morris water maze (an associative-learning test) were used to compare 10 transgenic (TG) and 10 control (NTG) male mice.

The elevated plus maze test showed no differences in measures of anxiety between TG and NTG mice. However the memory index of the elevated plus maze test (transfer latency) was significantly different in the TG mice in both the acquisition and retention phases. In the spontaneous alteration test, TG mice spent less time in the decision-making paradigm, and their rate of alteration was lower than NTG mice. In the Morris water maze, the latency time to find a hidden platform that the mice were trained to find was significantly longer for TG than for NTG mice [30 sec vs. 10 sec, ($p<0.05$)]. Furthermore, the latency time of the TG animals decreased after acute administration of d-amphetamine (dose= 3.0mg/kg diluted in physiologic saline and injected in a volume of 1 ml/kg) and was not different from the latency time of the NTG mice at baseline. The d-amphetamine treated NTG mice showed no difference in latency time from the baseline measures. These results, when contrasted with the TRβ1 mouse knockout, suggest that the presence of the mutant receptor may be responsible for the adverse effect on memory and may perturbate catecholamine/dopamine neurotransmitter systems. Furthermore, these results, taken together with our initial finding of increased locomotor activity, suggest that the Q340H

transgenic mouse may have potential as an animal model of ADHD.

NR372 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Venlafaxine and Dothiepin in Elderly Depressed Patients: A Comparison of Efficacy and Effects on Cognition and Subjective Sleep

Neil Stanley, Research, HPRU Medical, Centre Egerton Road, Guildford Surrey GU25XP, United Kingdom; Susan Kimber, Diane B. Fairweather, Ph.D., Ian Hindmarch, Ph.D.

Summary:

Objective To compare venlafaxine and dothiepin for efficacy and effects on cognitive function in 86 depressed elderly patients in general practice.

Method: In a randomized, parallel group, double-blind study, patients (mean age 71) received either venlafaxine (37.5mg b.d.) or dothiepin 75 mg (25mg morning, 50mg evening) for 26 weeks. At baseline then at regular intervals, patients were assessed using the Montgomery-Asberg Depression Rating Scale (MADRS) and validated tests of cognitive function and sleep.

Results: Both venlafaxine and dothiepin caused a significant reduction in the MORS ($p<0.01$). Critical Flicker Fusion scores were significantly higher with venlafaxine ($p<0.05$) than dothiepin at the majority of test points. There were significant differences in ratings of sedation, with patients on venlafaxine feeling much less likely to fall asleep during the day. Venlafaxine also significantly increased the subjective ease of awakening from sleep ($p<0.05$).

Conclusion: Patients taking venlafaxine performed significantly better on objective cognitive tests, felt better on awakening, and were less likely to fall asleep during the day than those taking dothiepin. This was reflected by a lower rate of minor accidents with venlafaxine (29%) compared with dothiepin (40%). These factors are important in the management of depression in ambulatory elderly patients.

This research was supported by Wyeth.

NR373 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Assessing the Clinical Practice of Prescribing Adderall Versus Methylphenidate to Children with ADHD

Stephen Grcevich, M.D., Department of Psychiatry, Family Center by Falls, 8500 East Washington Street, Chagrin Falls OH 44023; William A. Rowane II, M.D., Beth Marcellino, B.A., Shannon Sullivan-Hurst, B.A.

Summary:

To compare the dosing strategies, safety, and efficacy of Adderall vs. methylphenidate in children and adolescents with ADHD. Collection of prospective and retrospective data over six years from 200 children with ADHD. Conners rating scales scores were obtained initially and following any changes in ADHD therapy. 164 children (40 girls, 122 boys; mean age: 10.9 years) were included in the analyses. 75/164 were prescribed methylphenidate and 54/164 were prescribed Adderall during their initial visit. 88.9% of Adderall subjects were treated with BID dosing or less; 74.7% of methylphenidate subjects required therapy TID or more. 48.2% of Adderall subjects did not require in-school dosing; 88% of Ritalin subjects required in-school dosing ($p<0.0001$). 5/54 (9.3%) Adderall subjects and 29/75 (38.7%) methylphenidate subjects discontinued/switched their initial therapy within first six months ($p<0.001$). Efficacy data were unobtainable due to 136/164 subjects not having at least one questionnaire answered. Both drugs were well tolerated. Compared with Adderall, children initially treated with methylphenidate are more likely to have their medication changed within the first six months and are more likely to require in-school dosing.

Supported by Shire Richwood Inc.

NR374 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Perinatal Risk Factors Associated with ADHD: A Community Study

Boong Nyun Kim, M.D., Department of Psychiatry, Soon Young Hospital, 447-1 Gasan-ri Chookdong-myun, Sacheon-si, Kyoung 664-810, South Korea; Soo-Churl Cho, M.D., Mi-Na Ha, M.D., Hyun-Kyoung Seo, M.D., Hye-Kyoung Hwang, M.D.

Summary:

Objectives: Increased pre- and perinatal problems in patients with attention deficit hyperactivity disorder (ADHD) have been reported. But these findings were not consistent in community-based studies. This community-based study was conducted to evaluate the association between various perinatal problems and symptoms of ADHD in community sample.

Method: The subjects recruited by randomized sampling method were 1,271 children from 14 elementary schools in a urban community of South Korea. We evaluated the symptoms of ADHD by Child Behavior Check List, disruptive behavior disorder scale from two sources (parents and teachers). The thorough evaluation of perinatal problems was carried out. Data were analyzed by appropriate statistical method using SPSS 8.0, Windows version.

Results: Among prenatal events, severe nausea in first trimester and emotional stress were significantly more frequent in the attention deficit group. For obstetrical events, prolonged labor time and emergency C-sec were significantly more frequent in attention deficit group compared with the normal group. There was no difference in frequency of eclamsia, other medical conditions of mother, drug or alcohol abuse, habitual smoking, and postpartum depression. Multiple logistic regression analysis showed that severe nausea in the first trimester, prolonged labor time, and emergency C-sec were significantly associated with ADHD problems.

Conclusion: These findings implied that hyperemesis in early pregnancy, difficult labor, and emergency C-sec could be risk factors of attention deficit hyperactivity disorder. Further research is necessary to prove the etiological association of these perinatal risk factors.

NR375 Tuesday, May 18, 3:00 p.m.-5:00 p.m. CBF Change During Methylphenidate Treatment in Subjects with ADHD

Boong Nyun Kim, M.D., Department of Psychiatry, Soon Young Hospital, 447-1 Gasan-ri Chookdong-myun, Sacheon-si, Kyoung 664-810, South Korea; Soo-Churl Cho, M.D., Jae-Sung Lee, Ph.D., Dong-Soo Lee, M.D.

Summary:

Objectives: We conducted this study to test the hypothesis that children with ADHD may have distinctive findings from normal controls in single photon emission computed tomography (SPECT) and to find out topographic change of cerebral perfusion between pretreatment and posttreatment state in children with ADHD.

Method: We selected 32 patients with pure ADHD (age: 14.2, all males) according to DSM-IV criteria through various standardized assessment scales, psychometric tools, and neuropsychological battery. We also chose 11 age- and sex-matched controls (age 13.9, all males). These patients were studied by Tc^{99m}-HMPAO Brain SPECT before and after four to five weeks of treatment. First, using image subtraction method, we obtained NDR (preTx scan-postTx scan/preTx scan*100%) parametric image. Second, three transaxial brain slices delineating anatomically defined region of interest (ROI) at approximately 2, 4, 6cm above the orbitomeatal line were used, with the average number of counts for each region of interest normalized to the area of cerebellar maximal uptake.

Result: (1) By imaging subtraction method: We found increased cerebral blood flow in posttreatment state in frontal lobe, caudate nucleus, and thalamus. When the change of brain SPECT and clinical improvement were compared, matching rate, sensitivity, specificity between them were 77.1%, 80.0%, and 79.2%. (2) By ROI method: Comparing the pretreatment ADHD group and control, the ADHD group showed decreased cerebral blood flow in both prefrontal lobes, caudate nucleus, thalamus, and left anterior parietal lobe. But, in the posttreatment state, those differences maintained only in prefrontal and parietal areas, that is, defect in caudate and thalamus was normalized by MPH treatment.

Conclusion: These findings implied that the rCBF reduction in ADHD in caudate and thalamic areas might be "state"-related property and could be reversible by successful treatment but, decreased rCBF in fronto-parietal area might be "trait"-related property.

NR376 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Guanfacine and Post-Traumatic Sleep Disorders in Boys

Joseph P. Horrigan, M.D., Department of Psychiatry, University of North Carolina, CB#7160, Chapel Hill NC 27514-2877; L. Jarrett Barnhill, Jr., M.D.

Summary:

Objective: Disrupted sleep is an important aspect of post-traumatic stress disorder (PTSD). Clonidine has been found useful in treating sleep disorders as well as PTSD. This study was designed to evaluate the efficacy of a related alpha-2 agonist, guanfacine, in the management of sleep problems in traumatized children.

Method: Fourteen boys (mean age 8.9 years) attending a residential school with DSM-IV criteria PTSD were administered guanfacine in an open-label, prospective fashion. The initial guanfacine dose was 0.5 mg at bedtime, which was advanced to 1 mg after three days. Nighttime staff kept sleep records, Conners Parent-Teacher scales (short form) were completed by the morning staff, and the children were physically examined on a weekly basis,

Results: Thirteen out of 14 finished the four-week trial. Minimal side effects were noted. The mean improvement in sleep latency was 32.5 minutes ($p<.01$), the mean change in the morning Conners score was 9.85 ($p<.00$ 1), while 69% were rated "very much" improved by CGI scores; 54% reported cessation of dreams (Including nightmares) altogether.

Conclusions: Guanfacine appears to be useful in managing the sleep problems of traumatized boys. More systematic study of guanfacine in this role is required.

NR377 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Adolescent Eating Behavior: A Factor in Developing Alcohol Use Disorders?

Carol A. Beresford, M.D., Department of Psychiatry, Children's Hospital, 1056 East 19th Avenue, Denver CO 80218; Steven Wilson, Robin Corley, Ph.D., John K. Hewitt, Ph.D., Thomas P. Beresford, M.D.

Summary:

Eating disorders frequently develop among adolescents, especially females. Follow-up studies have reported increased rates of alcohol dependence in adulthood among women whose eating disorder had waned. We hypothesized that the two behaviors were related and sought direct evidence associating reported eating and drinking behaviors among a sample of 1,087 twins in our state registry. Subject ages ranged from 12 to 18; half were female. Each answered seven items associated with eating disorders and two items on frequency and quantity of alcohol use. The data were analyzed using chi square tests in two-by-two tables. Four of the eating behavior items were related to frequent alcohol use (3+ drinking episodes in the past 30 days): feeling fat ($p<0.05$), thinking about thinness (0.05), eating to relieve stress (0.001), and not eating to relieve stress (0.02). The first and the last two of these were also associated (0.05, 0.02, 0.05, respectively) with high quantity of alcohol per episode (3+ standard drinks) as was another item, finding it hard to stop eating (0.05). These data suggest that eating and drinking behaviors in adolescence may be related to development of problem drinking. The existence of possible gender or genetic effects await further analysis.

NR378 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Famotidine Treatment of Young Children with Autistic Spectrum Disorders

Linda Linday, M.D., Pediatrics, St. Luke's-Roosevelt, 340 West 55th Street, 9A, New York NY 10019-3766; John A. Tsiouris, M.D., Ira L. Cohen, Ph.D., Robert Decresce, M.D.

Summary:

Objective: To test the hypothesis that famotidine, a marketed H2 receptor antagonist that can improve the negative symptoms of adults with schizophrenia, would improve the social deficit symptoms of some children with autistic spectrum disorders.

Method: Our subjects were nine Caucasian boys, 3.8-8.1 years old, with a DSM-IV diagnosis of a pervasive developmental disorder, living with their families, receiving no chronic medications, and without significant gastrointestinal symptoms. Our main study was a randomized, double-blind, placebo-controlled, crossover study of oral famotidine at 2 mg/kg/day (given in two divided doses); the maximum total daily dose was 100 mg. Primary efficacy, based on data kept by primary caregivers, included a daily diary; daily visual analogue scales of affection, reciting, or aspects of social interaction; Aberrant Behavior Checklists (Aman); and Clinical Global Improvement scales. Teachers and home therapists provided supplementary efficacy data.

Results: 4/9 subjects (44%) had evidence of behavioral improvement, using single-subject analysis; a high stereotype score (greater than 7) on the mother's entry ABC identified the group of nonresponders ($p = 0.014$; median test).

Conclusion: The percentage of children with autistic spectrum disorders who responded to famotidine in our study is similar to that reported for naltrexone in this patient population (30%-46%).

However, recent reports indicate that children with autism and chronic diarrhea have a high incidence of asymptomatic esophagitis (diagnosed by endoscopy). Our subjects did not have significant gastrointestinal symptoms, and endoscopy was not part of our protocol; nonetheless, we cannot exclude the possibility that our subjects' behavioral improvement was due to the effective treatment of asymptomatic esophagitis. Use of famotidine to treat children with autistic spectrum disorders warrants further investigation.

The famotidine oral suspension used in this study was donated by Merck & Co., Inc.

NR379 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Racial Differences in the Treatment of Adolescents with Bipolar Disorder

Melissa P. Delbello, M.D., Department of Psychiatry, University of Cincinnati, 231 Bethesda Avenue, ML559, Cincinnati OH 45267; Cesar A. Soutullo, M.D., Jennifer E. Ochsner, B.S., Susan L. McElroy, M.D., Paul E. Keck, Jr., M.D., Stephen M. Strakowski, M.D.

Summary:

Objective: Previous studies have suggested that patient ethnicity influences clinical decision-making in psychiatry. We therefore examined racial differences in the psychopharmacological treatment of adolescents with bipolar disorder.

Method: We retrospectively reviewed the hospital records of all patients with a discharge diagnosis of DSM-IV bipolar disorder who were admitted to the Children's Hospital Medical Center's adolescent psychiatry unit between July 1995 and June 1998 (N=82).

Results: Sixty-three (77%) of the adolescents were Caucasian, 15 (18%) were African American, and four (5%) were from other ethnic backgrounds. There were no differences in age, sex, co-occurring diagnoses, number of days hospitalized, number of episodes of seclusion or restraints, and number of PRN medications received between the Caucasian and non-Caucasian adolescents. Non-Caucasian patients were more likely than Caucasian patients to receive antipsychotic medications (68% vs. 43%, respectively, X^2=3.8, df=1, p=0.05). However, there was no difference between groups in the rate of psychotic symptoms (Caucasian=21% vs. non-Caucasian=16%, X^2=0.2, df=1. p=0.6).

Conclusions: Despite similar rates of psychotic symptoms, non-Caucasian adolescents were more likely to receive antipsychotics. Further investigations are necessary to better understand factors that contribute to these treatment differences.

NR380 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Fire Setting in Comorbid Adolescents

Pe Shein Wynn, M.D., Department of Psychiatry, New York Medical College, Psychiatric Institute, Valhalla NY 10595; Mary A. Pressman, M.D.

Summary:

Objective: To evaluate the correlation between fire setting and comorbid substance abuse and psychiatric diagnoses (SA/PD) in adolescents.

Method: Retrospective review of all cases evaluated in 1997 (N=212) at the comprehensive psychiatric emergency program was conducted. A total of 43 cases, ages 12-18, were identified as SA/PD. Forty-three controls, randomly selected from the non-substance-abusing adolescents, and matched on age, gender, and ethnicity, were chosen. Student t-test, Chi-square tests, Spearman correlation, and Logistic Regression Analysis (LRA) were used.

Results: Fire setting was significantly associated with SA/PD adolescents (21% vs. 0%, p <0.01). It was significantly correlated with past and current substance use (Spearman's correlation coefficient = 0.37, p <0.001 and 0.28, p <0.01, respectively) after partialling out the influence of psychiatric symptoms. Substance history was a significant predictor of fire setting (p <0.01) in a LRA.

Conclusion: Patients with a history of fire setting should be carefully evaluated for substance abuse, and conversely, the SA/PD adolescent frequently has a history of fire setting. Substance abuse may be a fourth element in the classical triad of fire setting, enuresis, and cruelty to animals. Unfulfilled needs for nurturance early in childhood, resulting in impulsivity and poorly controlled aggression, may be a dynamic common to all these symptoms.

NR381 Tuesday, May 18, 3:00 p.m.-5:00 p.m. A Survey of Early Symptoms in Children with Bipolar Illness

Robert M. Post, M.D., Biological Psychiatry, NIMH/Building 10, Rm 3N- 212, 10 Center Drive, MSC 1272, Bethesda MD 20892; Emily L. Fergus, B.S., Gabriele S. Leverich, M.S.W., Andrew M. Speer, M.D.

Summary:

Introduction: The diagnosis of childhood bipolar disorder remains a controversial topic. Although several studies have noted differences in the childhood presentation of bipolar disorder (Carlson, 1983), some clinicians feel that only when full adult criteria are met can a diagnosis be reached and appropriate intervention instituted. Such a position may prevent seriously ill children from receiving appropriate treatment and may further the morbidity and ultimate severity of their bipolar illness (Wozniak & Biederman, 1997).

Methods: The current survey sought to evaluate symptoms and behaviors in children who later were diagnosed with bipolar disorder. Parents of a child with a bilineal, unilineal, or no family history of bipolar illness, who responded to an advertisement, retrospectively rated their child's symptoms and behaviors in each year of life on a modification of the NIMH-K-LCM™ for children.

Results: Compared with children with no diagnosis (N=33) or those with non-bipolar conditions (N=70), children ultimately diagnosed with bipolar illness (N=57) showed an increased incidence (p< 001 and duration (p< 0.001) of temper tantrums, hyperactivity, impulsivity, increased aggression, periods of sadness. poor frustration tolerance, irritability, inappropriate sexual behavior, racing thoughts, grandiosity, paranoid thinking, bizarre behavior, decreased sleep, and suicidal gestures. For the bipolar children, (mean age 14.92 years), the age of onset of these symptoms was 8.16 years (± 2.495).

Conclusions: These preliminary findings warrant further prospective investigation and suggest that a constellation of early symptoms and behaviors may be readily recognizable in children with bipolar illness. If such findings are confirmed, they might help trigger earlier recognition and intervention with children at high risk for bipolar illness.

NR382 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Stability of Major Depression and Depressive Symptomatology in Child and Adolescent Inpatients

Richard P. Malone, M.D., Department of Psychiatry, EPPI, 3200 Henry Avenue, Philadelphia PA 19129; David S. Bennett, Ph.D.,

Muniya S. Choudhury, B.A., Vicki L. Martin, M.D., James F. Luebbert, M.D., Mary A. Delaney, M.D.

Summary:

Objective: Few studies investigate the stability of major depressive disorder (MDD) in children and adolescents. Such information is critical for evaluating treatment response.

Method: Subjects were 66 inpatients (26 males and 40 females, mean age = 14.4 ±2.2 years) with a clinical diagnosis of MDD at admission. They were evaluated serially for continued symptoms over a two-week period. Measures included the Diagnostic Interview for Children and Adolescents-Revised (DICA-R) for making diagnosis, and the Hamilton Rating Scale for Depression, Beck Depression Inventory, and Children's Depression Inventory for rating depressive symptoms.

Results: Of the 66, 34 (51.5%) initially met criteria for MDD by DICA-R. Of these 34, 26 (76.5%) did not meet criteria at subsequent assessments. Depressive symptoms decreased significantly across time for the sample on all measures. Most subjects did not receive medication, nor did medication affect outcome.

Conclusions: MDD was not stable in this sample. The 76.5% "cure rate" in those initially meeting criteria for MDD exceeds drug or placebo response rates from reported controlled trials. These findings have important clinical implications and suggest that commencing drug treatment at evaluation may lead to medicating many children and adolescents unnecessarily. Further research examining the stability of NMD in this population is warranted.

This work was supported in part by USPHS Grant ME-00979 (Dr. Malone).

NR383 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Conduct Disorder in Children Treated with Risperidone

Robert L. Findling, M.D., Department of Psychiatry, University Hospital, 11100 Euclid Avenue, Cleveland OH 44106; Nora K. McNamara, M.D., Lisa A. Branicky, M.A., Eloise Lemon, R.N., Mary A. O'Riordan, M.S., Mark D. Schluchter, Ph.D., Jeffrey L. Blumer, M.D.

Summary:

Objective: The purpose of this double-blind, placebo-controlled study was to determine whether risperidone was superior to placebo in children with conduct disorder. Aggression is the most common target symptom for which youths are prescribed antipsychotics.

Methods: Twenty patients without mental retardation aged 6-14 years, meeting DSM-IV criteria for conduct disorder and with a score of ≥3 on the Rating of Aggression Against People and/or Property (RAP) scale, indicating at least moderately aggressive symptomatology, were randomized to receive risperidone or placebo. Doses of risperidone were increased over a six-week period up to maximum doses of either 1.5 or 3.0 mg/day (based on patient weight).

Results/Conclusions: Improvements in RAP scores were significantly greater in patients receiving risperidone than placebo ($p<0.05$). Risperidone was well tolerated and not associated with extrapyramidal symptoms with this dosing regimen.

NR384 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Childhood Abuse: Limbic System Checklist-33 and Cerebellar Vermis

Carl M. Anderson, Ph.D., Department of Psychiatry, McLean Hospital, 115 Mill Street, Belmont MA 02478; Ann Polcari, R.N., Cindy E. McGreenery, Luis C. Maas, M.S., Perry F. Renshaw, M.D., Martin H. Teicher, M.D.

Summary:

Objective: Child abuse has been associated with development of dissociative symptoms suggestive of temporal lobe epilepsy (TLE) or limbic irritability, and abnormal EEG. fMRI was used identify brain regions associative with symptoms of limbic irritability as assessed by a self-reports scale, the Limbic System Checklist-33 (LSCL-33).

Method: Thirty-two young adults (9M/32F; 18-22 yr) participated, including 15 (3M/12F) with a history of sexual or verbal childhood trauma exclusive of physical trauma. Inclusion criteria: successful completion of the LSCL-33, Abuse Trauma Questionnaire (ATQ), Hamilton Anxiety Scale (HAS), Dissociative Experience Scale (DES). On a separate day each subject underwent a echo planner fMRI to assess basal blood perfusion in the anterior cerebellar vermis (ACV), cerebellum and anterior temporal lobe (ATL), and whole left and right hemispheres.

Conclusion: Multiple step-wise regression was used to identify brain regions related to the dependent variable of LSCL-33 scores [$r = 0.891$; $F4,18 = 17.37$; $p = 0.000005$]. The independent variables of abuse history ($p=.00001$), ACV blood flow ($p=.00003$), right cerebellum blood flow ($p=.002$) and right temporal lobe blood flow ($p=.03$) were strongly correlated with LSCL-33 scores. These findings are significant in light of the fact that the ACV has a protracted period of postnatal development, which may engender susceptibility to the effects of early verbal or sexual abuse.

Supported, in part, by NIMH Award RO1 MH-53636 to MHT.

NR385 Tuesday, May 18, 3:00 p.m.-5:00 p.m. Affect Dysregulation in Ataque de Nervios and History of Childhood Trauma

Daniel S. Schechter, M.D., NYS Psychiatric Institute, 1051 Riverside Drive, Unit 63, New York NY 10032; Randall D. Marshall, M.D., E. Salman, D. Goetz, S. Davies, E. Dong, Michael R. Liebowitz, M.D.

Summary:

Objective: Ataque de nervios is a common, self-labeled Hispanic folk diagnosis listed in the DSM-IV glossary of culture-bound syndromes. It typically describes episodic, dramatic expressions of negative emotion, often involving destructive behavior and dissociative symptoms, which usually occur in response to stressors. Previous research has found an increased incidence of psychiatric disorder in individuals with *ataque de nervios*. The dissociative features and affective dysregulation typical of such episodes suggest a link to childhood trauma, which is investigated in this study.

Method: Psychiatric diagnoses, history of *ataque de nervios*, and childhood traumatic experiences were assessed using structured interview or self-report questionnaire in treatment-seeking Hispanic patients (N=70). The incidence of childhood trauma among subjects with and without *ataque de nervios* was examined using the chi-square test or Fisher's exact test.

Results: Significantly more subjects with an anxiety or affective disorder plus *ataque* reported a history of physical abuse, sexual abuse, or a substance-abusing caretaker than those with psychiatric disorder but no *ataque*.

Conclusion: In some Hispanic individuals, *ataque de nervios* may represent a culturally-sanctioned expression of dissociative, somatoform, and affect dysregulation associated with childhood

trauma. Patients presenting with a history of *ataque de nervios* should receive a thorough traumatic history assessment.

NR386 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
The Guided Clinical Interview for Axis II: Reliability

J. Christopher Perry, M.D., Department of Psychiatry, Jewish General Hospital, 4333 Cote Ste-Catherine Road, Montreal QC H3T 1E4, Canada; Ann Greif, Ph.D., Floriana Ianni, M.D., Carmella Roy, M.D.

Summary:

Objective: Methods for diagnosing Axis II disorders include self-report, structured interview, and clinical interview. While clinicians most commonly use the clinical interview, reliability has not generally been demonstrated. This study reports reliability on two samples of patients using the Guided Clinical Interview as well as some external correlates.

Methods: Subjects were inpatients at the Austen Riggs Center (Stockbridge, Massachusetts) and outpatients at the Jewish General Hospital (Montreal, Quebec) entering treatment. Each subject entering the research project received a diagnostic battery including the Guided Clinical Interview for Axis I-V emphasizing Axis II, administered by trained clinicians and the SCID for Axis I and other assessments administered by research assistants.

Results: Inter-rater Reliability (median weighted kappas) in samples I (Austen Riggs Center n = 110) and II (Jewish General Hospital n = 20) were good for disorders with base rates > 5%: Axis I (.89) and Axis II (.84). Using continuous measures of Axis II criteria, median reliability was .93. Reliabilities of other Axes were also acceptable. Some mood, impulse system and social functioning correlates of Axis II are also presented.

Conclusions: The GCI obtained good reliability and the external correlates suggest the GCI is a viable alternative to other diagnostic methods.

NR387 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Trans-Meta-Analytic Comparison Across Specific Disorders

J. Christopher Perry, M.D., Department of Psychiatry, Jewish General Hospital, 4333 Cote Ste-Catherine Road, Montreal QC H3T 1E4, Canada

Summary:

With a burgeoning number of studies of the efficacy of psychotherapy or pharmacotherapy for psychiatric disorders, meta-analysis has developed to compare disparate studies by a common method. Between-Condition Effect Sizes (ESs) can be compared for disorders for which these are a sizable number of randomized controlled clinical trials (RCTs), or comparative treatment trials. However, there are few RCTs for many important disorders. The authors employ a common systematic approach that allows comparison of different types of studies, including single cohort and RCT studies, while retaining the ability to detect how differences among them might contribute to overall ESs. Each paper systematically reviewed the literature using computer and hand-based searches. Within-Condition Effect Sizes were calculated for each measure for each treatment arm or control condition. Measures were divided broadly into self-report and observer-rated perspectives and subdivided into measures of symptoms, social functioning, or core psychopathology. Each study treatment arm was examined as the unit of study. Variables included sample description (e.g., illness measures, age, years ill), treatment description (e.g., therapy or drug type, duration), length of follow-up after treatment, drop-out rate, and others. Psychotherapy studies were generally longer but had lower proportions of drop-outs. Pharmacotherapy and psychotherapy study designs and measures were often different, as were some of the characteristics correlating with ES. The results generally support the efficacy of both approaches with mean changes on observer-rated measures demonstrating larger ES's than self-report measures. Strikingly, these often chronic disorders require greater improvement than our current, generally short-term treatment approaches produce.

NR388 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Impulsive Aggression Associated with HTR1B Genotype in Personality Disorders

Antonia S. New, M.D., Department of Psychiatry, Mt. Sinai/Bronx VAMC, Box 116A, 130 West Kingsbridge Road, Bronx NY 10468; Joel Gelernter, M.D., Vivian Mitropoulou, M.A., Harold W. Koenigsberg, M.D., Larry J. Siever, M.D.

Summary:

Objective: To assess the relationship between two phenotypes in a well-characterized population of personality disorder patients and genotype at the serotonin 1B receptor locus.

Method: HTR1B genotype (a polymorphic site and a polymorphic site in the promoter region) was assessed in 90 personality-disordered patients with personality disorder. Impulsive aggression was assessed using the Buss-Durkee Hostility Inventory (BDHI) and the Barratt Impulsivity Scale.

Results: In 90 personality disorder patients, the more frequent allele of the polymorphic gene at the HTR1B locus, 861G, was associated with higher impulsive aggression scores as measured by the Buss Durkee Hostility Inventory compared with 861C: (total score: 861G,G: 39.4±13.2, n=48; 861G,C: 36.0±12.7, n=34; 861C,C: 29.3±8.2, n=8; F[1,2]=4.5, p<.04), as well as a composite score of irritability and assault (861 G,G: 12.3.+ 4.7, n = 48; 861 G,C: 11.0 ± 4.7, n = 34; 861 C,C: 9.2 ± 3.2; F[1,2] 3.8,p<.05).

Conclusion: This preliminary finding suggests that allelic variability at the HTR1B locus may be associated with differential measures of aggression in personality disorder patients.

NR389 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
A Study of Personality Dysfunction in Adolescents in Urban Beijing

Yueqin Huang, M.D., Pre Medicine, Beijing Medical University, 38 Xue Yuan Road, Beijing 100083, P.R. China; Shumei Yun, M.D., Lihong Shi, M.D., Guizhi Zhang, Youxin Xu, M.D.

Summary:

Objective: To explore the prevalence of personality dysfunction and its distribution among high school students in urban Beijing and to explore the effect of parental rearing behavior and related factors on adolescent personality dysfunction.

Method: In this cross-sectional study, 1148 students in four key and non-key high schools selected by cluster sampling in urban Beijing were investigated with the Personality Diagnostic Questionnaire-Revised (PDQ-R), the EMBU scale, and the General Information Questionnaire.

Results: The mean of total PDQ-R scores was 23.94. The rate of positive score was 14.3%. Among the 11-14 age group, the males had significantly higher scores than the females. The girls

in the 15-17 age group had significantly higher scores than the girls in the 11-14 age group. It showed that age and sex had interaction with the PDQ-R score. Three clusters of personality disorders had positive correlation with parental rejection and overprotection and negative correlation with parental emotional warmth. Multiple stepwise regression showed that parental rejection, overprotection, educational level, and single-parent family influenced occurrence of personality dysfunction in adolescents.

Conclusion: Incorrect parental rearing behavior is a risk factor of PD.

NR390 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Affective Instability in the Personality Disorders

Harold W. Koenigsberg, M.D., Bronx VAMC, Mount Sinai, 130 W Kingsbridge Rd, Rm 3B50, Bronx NY 10468; Philip D. Harvey, Ph.D., Vivian Mitropoulou, M.A., Antonia S. New, M.D., Larry J. Siever, M.D.

Summary:

Although affective instability (AI) is a highly prevalent and significantly debilitating symptom in personality disorders, its phenomenology and psychosocial consequences have not been well described. We examined AI in a sample of 152 personality disorder patients using the Affective Lability Scale (ALS) and the Affect Intensity Measure (AIM), as well as standard measures of impulsivity, aggression, defenses, and psychosocial symptoms. We hypothesized that AI would be particularly associated with interpersonal and identity symptoms and the use of less mature defenses.

There were significant ($p<.05$) correlations between symptoms reflecting identity and interpersonal disturbances (identity disturbance = .26, chronic emptiness and boredom = .26, and unstable interpersonal relationships = .17) and the lability (ALS) aspect of AI, but not the experiential intensity (AIM) aspect. We used a stepwise multiple regression procedure to examine the contribution of AI (ALS-total score), and impulsivity (Barrett Impulsivity Scale [BIS]-motor score and Buss-Durkee Hostility [BDFH] irritability-assault score) to identity an behavioral symptom clusters. ALS-total was the only variable contributing significantly to prediction of the identity cluster ($F = 19.63$, $df = 1$, $p = .0000$). Irritability-aggression and ALS-total contributed significantly to the behavioral cluster ($F = 16.93$, $df = 2$, $p = .0000$). Affective lability, but not experiential intensity or motor impulsivity, was significantly ($p<.001$) associated with immature and neurotic defensive styles as measured by the Defense Style Questionnaire.

NR391 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
An Epidemiological Study of Personality Disorder

Xiufen Liu, M.D., Pre Medicine, Beijng Medical University, 38 Xue Yuan Road, Beijing 100083, P.R. China; Yueqin Huang, M.D., Liming Lee, M.D.

Summary:

Objective: To explore the prevalence of personality disorders among undergraduate students in China and the effect of parental rearing behavior and related factors on personality formation.

Method: In one key university in Beijing, all 2205 freshmen were investigated with the Personality Diagnostic Questionnaire-Revised (PDQ-R), the EMBU scale, and the General Information Questionnaire. A total of 225 students with positive PDQ-R scores were examined by International Personality Disorder Examination, revealing 55 students diagnosed as having personality disorder (PD). Psychotherapy with the PD students was carried out with a 1:4 matched case-control study afterwards.

Results: The mean of total PDQ-R scores was 23.91±8.35. The rate of positive scores was 6.3%. The prevalence of personality disorders diagnosed by IPDE was 2.5%. Among the PD cases, the ratio of obsessive-compulsive personality was 36.9%. Regarding the EMBU scale, the scores for maternal emotional warmth, overprotection, and favoring were significantly higher than those for paternal factors. Conditional logistic regression showed that parental rejection, single-parent family, poor parental relationship, lower income, and single-child family increased the risk of personality disorders.

Conclusions: Inaccurate parental rearing behavior and poor family environment are risk factors for personality disorder. Intervention in PD should be accomplished in order to make the PD students better adapt themselves to social environment.

NR392 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Personality Disorders and Depression: Effect of Antidepressant Treatment

Maurizio Fava, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 812, Boston MA 02114; Amy Farabaugh, M.A., Margarita L. Delgado, B.A., Emma C. Wright, B.S., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., John J. Worthington III, M.D.

Summary:

We wanted to assess whether depressed patients who receive antidepressant treatment experience changes in behaviors that lead to the loss of a personality disorder diagnosis.

Method: We assessed 292 outpatients (151 women and 141 men; mean age: 40.2±10.4) with major depressive disorder diagnosed with the SCID-P and with at least one comorbid personality disorder diagnosed with the SCID-II. All subjects underwent eight weeks of open treatment with fluoxetine 20 mg/day and were readministered the SCBD-II at endpoint.

Results: We observed the following rates of comorbid personality disorders at baseline: avoidant 28%, dependent 13%, obsessive-compulsive 32%, passive-aggressive 13%, self-defeating 13%, paranoid 25%, schizotypal 3%, schizoid 4%, histrionic 3%, narcissistic 11%, borderline 14%, and antisocial 6%. Following eight weeks of fluoxetine treatment, there was a significant (McNemar Test; $p<.05$) reduction in the proportion of patients meeting criteria for avoidant, dependent, passive-aggressive, paranoid, and narcissistic personality disorders. Further, the absence of comorbid anxiety disorders was a significant ($p<.005$) predictor of the loss of cluster A personality disorders and was almost a significant ($p<.06$) predictor of the loss of cluster C personality disorders, while depression severity at baseline or change in depression severity with treatment were not significant predictors. On the other hand, lesser severity of depression at baseline, but not change in depression with treatment or the absence of comorbid anxiety disorders, was a significant ($p<.05$) predictor of the loss of cluster B personality disorders.

Conclusion: A significant proportion of depressed patients no longer met criteria for personality disorders following antidepressant treatment, with such loss of diagnosis not being related to degree of improvement in depressive symptoms.

NR393 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Treatment Lengths of Comorbid Axis I and II Illness

Bruce W. Phariss, M.D., 1044 Madison Avenue #PH, New York NY 10021-0138; David M. Erlanger, Ph.D.

Summary:

Research and clinical experience indicate that patients with personality disorders (PDs) require extended treatment. The present prospective study of 1,029 outpatients in a self-insured mental health network (32 B/J Health Fund) confirmed this in general but found significant differences in treatment duration depending on presenting problem and particular PD cluster. Clinical interviews and psychometric tests were utilized to establish initial diagnoses. Treatment for depression was significantly longer for patients with either no PD or cluster A cluster PD NOS (μ =176.4 days) than for patients with cluster B PDs (μ=89.5 days). In contrast, pts with PDs presenting with anxiety disorders remained in treatment significantly longer (μ =134.2 days) than pts with no PD (μ =84.9 days). Pts presenting with relational problems were in treatment longer when diagnosed with cluster B, cluster C, or PD NOS than pts with no PD or cluster A PD. Despite higher initial complaint of distress, pts with PDs presenting with adjustment disorders did not have longer treatments than those with no PD. Results will be discussed in regard to symptom reduction, therapeutic outcome, client satisfaction, and cost. Recommendations will be presented for developing and providing appropriate treatments including group therapy for pts with PDs.

NR394 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Gabapentin in the Treatment of Depression and Anxiety in BPD

Karen J. Rosen, M.D., Department of Psychiatry, Butler Hospital, 345 Blackstone Blvd., Providence RI 02906; Elizabeth B. Simpson, M.D., Teri B. Pearlstein, M.D., Jacqueline Pistorello, Ph.D., Ellen Costello, Ph.D., Ann Begin, Ph.D.

Summary:

Controlled trials have demonstrated the efficacy of certain anticonvulsants for the treatment of mood and anxiety disorders. Anticonvulsants are used extensively as mood stabilizers in the treatment of bipolar disorder and have been shown to be beneficial in the treatment of mood instability and impulsive aggression in borderline personality disorder (BPD). Recently the new anticonvulsants have been shown to be effective in bipolar disorder and in the treatment of behavioral dyscontrol in organic mood disorder. Open-label studies, case series, and individual reports indicate that among the new anticonvulsants, gabapentin may be efficacious in the treatment of bipolar disorder and anxiety disorders. The purpose of this study was to examine whether the use of gabapentin may be effective in the treatment of depression and anxiety in BPD.

A group of 12 female outpatients who had at least four out of five borderline features as assessed by the Structured Clinical Interview for DSM-IV, Axis II, BPD section and presented with significant anxiety, as determined by their treating psychiatrist, had gabapentin added to their current medication regimen. Measures of depression using the Beck Depression Inventory (BDI) and anxiety using the State and Trait Anxiety Scores (STAI) were administered before the medication was added and again in eight weeks later. Gabapentin was titrated to an average dose of 900 mg/day.

Among the 12 patients who had gabapentin added to their regimen, there was a significant decrease in BDI scores from 34.83 (SD = 11.26) to 17.33 (SD = 9.23), $t(12) = 4.35$, $p<.001$; state anxiety scores from 74.83 (SD = 12.46) to 60.17 (SD = 14.30, $t(12) = 2.91$, $p<.05$; and trait anxiety scores 84.17 (SD = 12.22) to 67.83 (SD = 10.91), $t(12) = 4.09$, $p<.01$ between the start and end of the trial with gabapentin.

Augmentation with gabapentin led to improvement in depression and anxiety in a small sample of patients with strong BPD features. Gabapentin may play a useful role in the treatment of patients with BPD especially for those who exhibit severe anxiety. Further placebo-controlled trials with larger sample sizes are necessary to clarify the efficacy of gabapentin in BPD.

NR395 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Placebo Patterns of Response with Mirtazapine

Andrew A. Nierenberg, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 812, Boston MA 02114-3117; Jonathan E. Alpert, M.D., Jerrold F. Rosenbaum, M.D., Charlotte Kremer, M.D., Paul Reimitz, Ph.D., Maurizio Fava, M.D.

Summary:

Background: Placebo-pattern of response to open antidepressant treatment has been shown to occur in about 30% of patients who respond to either tricyclic. antidepressants or fluoxetine. It is unknown, however, if other antidepressants show similar rates of placebo pattern. This study assessed the frequency of placebo and true drug patterns of response to an open trial of mirtazapine

Method: As part of a larger study on relapse, 404 evaluable patients with DSM-IV major depressive disorder were treated openly with mirtazapine for eight weeks. Dosing of mirtazapine was flexible between 15 and 45 mg per day. Patients were evaluated weekly with the Clinical Global Impressions Scale. Using previously established patterns of response, we classified patients into true-drug and placebo-pattern responders. Frequency of classification is reported for the first six weeks for comparison to prior studies.

Results: For the first six weeks of the study, early persistent response was seen in 67/250 (25.5%), delayed persistent pattern in 108/250 (43.2%), early nonpersistent response in 38/250 (14.8%), and delayed nonpersistent pattern in 37/250 (14.8%). Overall, 75/250 (30%) had a placebo pattern of response.

Conclusion: Consistent with prior studies of antidepressants, an open trial of mirtazapine had about a third of responders who showed a placebo pattern of response.

NR396 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Personality, Alcohol and Drug Use Disorders As Predictors of Criminality

Carlos A. Hernandez-Avila, M.D., Department of Psychiatry, University of Conn Hlth Ctr, 263 Farmington Avenue, Farmington CT 06030; Joseph A. Burleson, Ph.D., James Poling, Ph.D., Howard Tennen, Ph.D., Bruce J. Rounsaville, M.D., Henry R. Kranzler, M.D.

Summary:

Objective: To evaluate personality disorder (PD) diagnosis as a predictor of criminal behavior among drug- and alcohol-dependent patients.

Method: We examined one-year pretreatment and one-year post-treatment crime rates among 370 drug- and/or alcohol-dependent patients. Hierarchical logistic regression was used to examine the predictive value of DSM-III-R Axis II diagnosis and to estimate risk (Odds Ratio, 95% Confidence Intervals [OR, 95% CI]) after controlling for demographics and type and severity of substance dependence.

Results: During the pretreatment period, patients with a diagnosis of antisocial PD (ASPD) were more likely to report having

committed a variety of crimes, including violent crimes (OR: 1.38, 95% CI: 1.10, 1.60). A diagnosis of schizoid PD (OR: 1.90, 95% CI: 1.26, 2.52), borderline PD (OR: 1.42, 95% CI: 1.07, 1.77), and the number of PD diagnoses (OR: 1.20, 95% CI: 1.05, 1.32) were also associated with violent crimes. In addition, the number of PD diagnoses was correlated with crimes against property (OR: 1.14, 95% CI: 1.02, 1.26). During the post-treatment period, a borderline PD predicted violent crimes (OR: 2.66, 95% CI: 1.65, 3.69) whereas a cluster A PD was associated with a lower likelihood of crimes against property (OR: .31, 95% CI: .10, .9 1). The ASPD did not predict criminality during the one-year follow-up period.

Conclusions: Although the ASPD diagnosis was associated with criminality during pretreatment, following treatment, the ASPD had a limited predictive value. In contrast, a borderline PD and a cluster A PD diagnosis were better predictors of crimes.

NR397 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
The Relationship Between Personality Impairment and MDD in Psychiatric Inpatients

Lisa J. Cohen, Ph.D., Department of Psychiatry, Beth Israel Medical Center, 1st Avenue and 16th Street, New York NY 10003; Igor I. Galynker, M.D., Shira Genack, B.A., Dina Zudick, B.A., Lara Eschler, M.A., Patricia Lopez, B.A., Sniezyna Watras-Gans, Ph.D.

Summary:

Introduction: Personality has always been conceptualized as a stable trait that should not be influenced by state changes such as the acute exacerbation and resolution of major depressive episodes. Recent research, however, has shown increasing evidence of relationships between Axis I and Axis II disorders. It is of interest therefore to investigate the mutual influence of personality and depression in an inpatient sample. Do depressed inpatients have a characteristic personality profile that may predispose them to depressive episodes? On the other hand, does the resolution of depressive symptoms change personality pathology?

Methods: Thirty-one depressed inpatients were assessed by categorical and dimensional measures of personality (MCMI-2 and Dimensional Assessment of Personality Impairment (DAPI).

Results: On the average, subjects scored above the cut-off point for 24% of Cluster A disorders, 26% of Cluster B disorders, and 52% of Cluster C disorders. On DAPI, patients were most impaired on measures of regulation of depression, anxiety, filtering of emotional information, empathy, dependency, assertiveness, and self-inhibition. Thus, on admission, patients presented significant personality pathology, primarily in the Cluster C domain. Nineteen patients were retested within two weeks. As assessed by paired t-tests, neither Cluster A nor C pathology changed with antidepressant treatment. Unexpectedly, Cluster B pathology increased by 50%. Cluster B diagnosis on admission also had a negative correlation with treatment response.

Conclusions: In this sample, patients present with considerable personality pathology. However, on admission, major depression may blunt pre-existing Cluster B pathology

NR398 Tuesday, May 18, 3:00 p.m.-5:00 p.m.
Pharmacotherapy of Borderline Patients

Frances R. Frankenburg, M.D., Department of Psychiatry, McLean Hospital, 115 Mill Street, Belmont MA 02478; Mary C. Zanarini, Ed.D., Tilla F. Ruser, M.D.

Summary:

Objective: To compare the pharmacotherapy of rigorously diagnosed borderline patients with that of Axis II controls, and to examine the effects of gender and comorbid PTSD on the psychotropic medications taken by these subjects.

Method: Semi-structured interviews of proven reliability were used to diagnose 290 subjects with DSM III-R BPD and 72 controls with other personality disorders. All subjects were interviewed about psychotropic medications that they had used for at least one month.

Results: About 80% of BPD subjects had been prescribed an antidepressant, 47% an anxiolytic, 39% a neuroleptic, and 22% an anticonvulsant. All these agents were prescribed significantly more frequently to BPD subjects than to control subjects. Within the BPD group, female subjects were more likely than male BPD subjects to be prescribed antidepressants (83% vs. 67%, p=.01). This difference was particularly marked with the SSRIs, with 73% of the female BPD subjects being prescribed SSRIs and only 46% of the male BPD subjects (p=.00001). BPD subjects with comorbid PTSD vs. BPD subjects without PTSD were significantly more likely to be prescribed antidepressant agents (86% vs. 71%, p=.003), anxiolytics (55% vs. 35%, p=0.009), neuroleptic agents (49% vs. 24%, p=.00003), and anticonvulsants (27% vs. 15%, p=.018).

Conclusions: Both gender and comorbid PTSD seem to play a more important role in the pharmacotherapy of borderline patients than previously recognized.

Supported, in part, by NIMH grant MH-47588.

NR399 Wednesday, May 19, 9:00 a.m.-10:30 a.m.
Pindolol Addiction Accelerates Antidepressant Effects of ECT

Lakshmi N. Yatharn, M.B., Department of Psychiatry, University of British Columbia, 2255 Wesbrook Mall, Vancouver BC V6T 2A1, Canada; I-Shin Shiah, M.D., M. Srisurapanont, M.D., Raymond W. Lam, M.D., Edwin M. Tam, M.D., Athanasios P. Zis, M.D.

Summary:

Objective: There is evidence that addition of pindolol, a ß-adrenergic/5-HT1A antagonist, can accelerate the onset of action of antidepressant medications. The purpose of this study was to determine whether pindolol administration can induce a rapid improvement in depressive symptoms in patients who received electroconvulsive treatment (ECT) within six ECT treatments.

Methods: A total of 20 patients with DSM-IV major depression who were undergoing a course of ECT as the clinically indicated treatment were recruited. They were neuroleptic, lithium, and antidepressant free for at least one week prior to the study. Of the 20 patients, nine patients had been randomly assigned to receive pindolol 2.5 mg t.i.d., and 11 patients received identical placebo t.i.d. for the duration of the first six ECT treatments.

Results: One out of nine patients in the pindolol group and four out of 11 patients in the placebo group dropped out from the study. Using an outcome measure of less than 12 on the 29-item Hamilton Depression Rating Scale (HAMD), we found that four out of eight patients (50%) responded to the combination treatment of ECT and pindolol within six ECT treatments. In contrast, none of seven patients (0%) who received placebo responded to ECT treatment. Furthermore, the 29-item HAMD scores after the sixth ECT in patients treated with pindolol were significantly lower than those in patients receiving placebo. However, we failed to find that pindolol addition reduces the number of treatments with-

in a course of ECT, or leads to a greater efficacy of ECT in the treatment of depression.

Conclusions: Our results suggest that pindolol addition hastens antidepressant effects of ECT. However, the number of total ECT treatments, within a course, or the overall efficacy of ECT treatment was not altered by the addition of pindolol. Further larger-scale, double-blind, placebo-controlled studies are needed to confirm the effectiveness of pindolol addition to ECT in the treatment of major depression.

References:

1. Artigas F, Perez V, Alvarez E: Pindolol induces a rapid improvement of depressed patients treated with serotonin reuptake inhibitors. Arch Gen Psychiatry 1994; 51: 248-25 1.
2. Blier P, Bergeron R: Effectiveness of pindolol with selected antidepressant drugs in the treatment of major depression. J Clin Psychopharmacol 1995; 15: 217-222.

NR400 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Acute TSH Change with Transcranial Magnetic Stimulation in Major Depression

Martin P. Szuba, M.D., Department of Psychiatry, University of Pennsylvania, 3600 Market Street, 8th Floor, Philadelphia PA 19104; Anil K. Rai, M.D., Judith S. Kastenberg, M.D., John P. O'Reardon, M.D., Howard J. Ilivicky, M.D., David Gettes, B.A., Dwight L. Evans, M.D.

Educational Objectives:

1. recognize the characteristic TSH level changes that occur immediately after TMS.
2. describe a potential mechanism for the acute mood elevating effects of TMS.

Summary:

Objective: We recently showed that TRH produces a same-day antidepressant effect in depressed subjects. A recent study in controls showed TMS elevates TSH levels when administered over prefrontal cortex. We were interested in whether TMS could acutely stimulate TSH in depressives and whether TSH changes would correlate with antidepressant effects.

Methods: Nine subjects received sham, and seven subjects received active TMS on days 2 and 4 of a larger two-week TMS trial in major depression. Subjects and raters were blind to treatment condition. Blood was drawn and mood was rated within one hour preceding and one hour following each 20-minute TMS session. TSH levels were assayed by RIA. The change in serum TSH was compared between the sham and active groups.

Results: After active TMS, TSH levels rose .17 ± .6 uIU/mL, but fell .22 ± .28 uIU/mL with sham TMS ($z=2.2$, $p=.027$). There was no correlation between TSH and mood changes.

Conclusions: These results suggest that TMS, over left prefrontal cortex, acutely stimulates TSH release in patients with depression. The TSH drop on sham days may be due to the natural circadian variation in TSH levels. Further, larger studies may determine if endocrine effects of TMS mediate its mood effects.

References:

1. George MS, Wassermann EM, Williams WA, Steppel J, Pascual-Leone A, Basser P, Hallett M, Post RM: Changes in mood and hormone levels after rapid-rate transcranial magnetic stimulation (rTMS) of the prefrontal cortex. J Neuropsychiatry Clin Neuroscience 8:172-180, 1996
2. Szuba MP, Fernando A, Whybrow PC, Amsterdam JD, Winokur A: Nocturnal TRH Administration Effects Acute Amelioration of Bipolar Depression, Proceedings of the Society of Biological Psychiatry Annual Meeting, San Diego, May 1997

NR401 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Acute Mood Effects of Transcranial Magnetic Stimulation Over Left Prefrontal Cortex in Major Depression

Martin P. Szuba, M.D., Department of Psychiatry, University of Pennsylvania, 3600 Market Street, 8th Floor, Philadelphia PA 19104; Anil K. Rai, M.D., Judith S. Kastenberg, M.D., John P. O'Reardon, M.D., Howard J. Ilivicky, M.D., Cara Grugan, B.A., Dwight L. Evans, M.D.

Educational Objectives:

1. recognize the characteristic mood changes that occur immediately after TMS.
2. describe a potential mechanism for the acute mood elevating effects of TMS.

Summary:

Objective: Recent work suggests transcranial magnetic stimulation (TMS) may produce rapid mood elevation when administered over left prefrontal cortex in depressed patients. Herein, we present results of the first double-blind, placebo-controlled trial intended to determine if TMS produces acute mood improvement in major depression.

Methods: We randomized 16 subjects with major depressive episodes into two groups. The first group (n=9) received sham TMS on days 2, 4, 7, and 9 of a larger two-week TMS trial in major depression. The second group (n=7) received active TMS on those days. Subjects and raters, blind to treatment assignment, assessed mood with a modified Hamilton Depression instrument and the Profile of Mood States (POMS) immediately before and immediately after the 20-minute treatment sessions.

Results: The active group achieved a significantly greater improvement on POMS subscales of depression, tension, and anger ($p \leq 02$). Trends toward greater improvement were evident for active vs. sham on POMS confusion, and vigor and on the modified Hamilton ($.05 < p \leq .1$). Some of the mood improvement dissipated by evening.

Conclusions: This double-blind, placebo-controlled trial documents that TMS can almost immediately elevate mood in patients with major depression. This improvement was evident in several mood domains. The mechanisms responsible remain to be determined

References:

1. Pascual-Leone A, Catalá MD, Pascual APL: Lateralized effect of rapid-rate transcranial magnetic stimulation of the prefrontal cortex on mood. Neurology 46:499-502, 1996
2. George MS, Wassermann EM, Williams WA, Steppel J, Pascual-Leone A, Basser P, Hallett M, Post RM: Changes in mood and hormone levels after rapid-rate transcranial magnetic stimulation (rTMS) of the prefrontal cortex. J Neuropsychiatry Clin Neuroscience 8:172-180, 1996

NR402 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Psychopharmacologic Treatment Recommendations for Major Depression

Joyce C. West, M.P.P., Quality Improvement, American Psychiatric Assoc., 1400 K Street, N.W., Washington DC 20005;

Philip J. Leaf, Ph.D., Deborah A. Zarin, M.D., Harold Alan Pincus, M.D.

Educational Objectives:

Understand health services research methods to assess conformance with evidence-based practice guidelines. Understand health plan, patient, psychiatrist, and setting factors, which appear to be associated with conformance with key practice guideline psychopharmacologic treatment recommendations for major depression.

Summary:

Objective: (1) Assess whether specific health plan features are associated with conformance with evidence-based practice guideline psychopharmacologic treatment recommendations for MDD; and (2) understand the significance of various patient, psychiatrist, and setting characteristics associated with conformance.

Methods: Nationally representative data from the APA Practice Research Network's 1997 Study of Psychiatric Patients and Treatments on 406 adult patients of psychiatrists with MDD were used. Logistic regression was used to assess the relationship between guideline conformance and plan features controlling for patient, psychiatrist, and setting variables.

Results: Overall, 91.7% of the patient sample received treatment consistent with the recommendations. Conformance rates for the specific recommendations were as follows: (1) antidepressant medication or ECT for patients with moderate, severe, or chronic depression (93.4%); combination of an antidepressant medication and a neuroleptic medication or ECT for patients with psychotic depression (80.9%); antidepressant medication and/or psychotherapy for patients with mild depression (97.6%); and no use of anxiolytic medications alone without antidepressant medications (96.0%). Variables most strongly associated with nonconformance with the MDD psychopharmacologic treatment recommendations were: (1) lack of psychiatrist financial incentives (OR=9.6; 95% CI=1.21, 75.38); (2) presence of a comorbid condition (OR=5.6; 95% CI=.97, 32.23); (3) psychiatrists with low proportions of patients publicly insured (OR=7.8; 95% CI=1.88, 32.14); (4) nonmanaged health plans (OR=3.8; 95% CI=1.36, 10.39); and (5) psychiatrists age 62 or older (OR=2.9; 95% CI=1.18, 7.34).

Conclusions: Findings have implications for designing and targeting quality improvement initiatives and developing and using evidence-based practice guidelines. Research is needed to assess whether patterns of conformance with other guideline recommendations are similar.

Funding provided by the MacArthur foundation, NIMH, and CMHS.

References:

1 .American Psychiatric Association. Practice guideline for major depressive disorder in adults. Am J Psychiatry. 1993; 150:4(supplement)

2. McGlynn EA, Asch SM: Developing a clinical performance measure. Am J Prev Med. 1998; 14-21

NR403 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Management of Major Depression in Rheumatoid Arthritis

James R. Slaughter, M.D., Department of Psychiatry, University of Missouri, 1 Hospital Drive, Columbia MO 65212; Jerry C. Parker, Ph.D., Karen L. Smarr, M.A., Sandra K. Johnston, M.A., Marydeth L. Priesmeyer, Ph.D., Gail E. Wright, Ph.D., Janda K. Buchholz, B.A.

Educational Objectives:

1. to increase awareness of the high comorbidity and disability associated with major depression in persons with rheumatoid arthritis (RA).
2. to recognize effective treatment strategies for the management of depression in RA.

Summary:

Objective: Depression, a common comorbidity in persons with rheumatoid arthritis (RA), results in increased suffering and disability. Despite the impact of depression in RA, many patients are not accurately diagnosed and effectively treated. Although psychological and pharmacological treatments are currently the clinical mainstay of treatment of depression, there has been little systematic study of combined psychological and pharmacological treatment of depression in RA.

Methods: Randomized, controlled trial of 45 patients with RA and DSM-III-R major depression conducted to investigate the comparative effects of three treatments: sertraline alone (CN-PHARM); a 10-week, attention-control (arthritis education program) and sertraline (AC-PHARM); and a 10-week, cognitive-behavioral therapy and sertraline (CBT-PHARM). Groups were assessed at baseline, three, and six months.

Results: In contrast to a priori hypotheses, all three groups were comparable at three and six months on depression, anxiety, and psychological status measures using MANCOVAs. Combining the groups revealed significant changes over time on measures of depression (including Ham-D) (p=.0001), anxiety (p=.0001), and psychological status (p=.0001), indicating improvement using MANOVAs.

Conclusions: Sertraline alone or in conjunction with psychological treatments was seen to be an effective and well tolerated treatment strategy. Results are discussed in terms of treatment implication for depressed patients with RA.

Funding Source: National Institute on Disability and Rehabilitation Research; Pfizer, Inc.; Department of Veterans Affairs.

References:

1. Morrow KA, Parker JC, Russell JL: Clinical implications of depression in rheumatoid arthritis. Arthritis Care Res 7:58-63,1994

2. Creed F, Ash G: Depression in rheumatoid arthritis: Aetiology and treatment. International Review of Psychiatry 4:23-34,1992

NR404 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Dehydroepiandrosterone Treatment of Major Depression

Victor I. Reus, M.D., Department of Psychiatry, Univ of California, 401 Parnassus Avenue, San Francisco CA 94143-0984; Owen M. Wolkowitz, M.D., Audrey Keebler, Nicola Nelson, Mirit Friedland, Louann Brizendine, M.D.,Eugene Roberts

Educational Objectives:

At the conclusion of this presentation, the participant should be able to demonstrate an understanding of the physiologic properties of dehydroepiandrosterone (DHEA) and discuss its potential as an antidepressant agent in the treatment of major depression.

Summary:

Dehydroepiandrosterone (DHEA) is an endogenous corticosteroid that is reputed to have mood-enhancing properties as a pharmacologic agent. Although widely utilized on an over-the-

counter basis, empirical evidence for behavioral effects in humans is limited. In a double-blind trial, Morales, et al (1994) demonstrated an increase in "well being" in middle-aged and elderly, healthy volunteers. This report presents data of the first double-blind, placebo-controlled trial of DHEA's potential antidepressant efficacy in patients diagnosed as having major depression.

Procedure: Twenty-two subjects with DSM-IV major depression (mean age = 44) were randomized to receive either DHEA (N = 11) or placebo (N = 11) for six weeks. Subjects took 30 mgm q day for the first two weeks, 30 mgm BID for the subsequent two weeks, and 30 mgm TID for the final two weeks. Depressive symptoms were rated at baseline and at the end of week six using the HDRS.

Results: DHEA-treated subjects showed a significantly greater antidepressant response than subjects given placebo on HDRS ratings ($P < .04$). The mean percentage change in HDRS ratings in the DHEA group was 30.5% as compared with 5.3% in the placebo group. DHEA was well tolerated by all subjects.

Conclusion: DHEA was shown to have statistically significant antidepressant effects in a double-blind, placebo-controlled trial. The mechanism for DHEA's mood-enhancing effects remain unclear, as do the risk/benefit effects of the administration of DHEA on a more chronic basis.

References:

1. Wolkowitz GM, Reus VI, Keebler A, Nelson N, Friedland M, Brizendine L, Roberts E: Double-blind treatment of major depression with dehydroepiandrosterone (DHEA). Am J Psychiatry, in press, 1998
2. Morales AJ, Nolan JJ, Nelson JC, Yen SS: Effects of replacement dose of 2. dehydroepiandrosterone in men and women of advancing age. J Clin Endocrinol Metab 78(6):1360-1367, 1994

NR405 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Nefazodone HCl, Cognitive Behavioral Analysis System of Psychotherapy and Combination Therapy for the Acute Treatment of Chronic Depression

Martin B. Keller, M.D., Department of Psychiatry, Butler Hospital/Brown Univ., 345 Blackstone Boulevard, Providence RI 02906; James P. McCullough, Ph.D., A. John Rush, M.D., Daniel Klein, Ph.D., Alan F. Schatzberg, M.D., Alan J. Gelenberg, M.D., Michael E. Thase, M.D.

Educational Objectives:

At the conclusion of this presentation, participants should be able to identify the demographic and clinical characteristics of chronically depressed patients and prescribe optimum treatment.

Summary:

Combined pharmacotherapy and psychotherapy may be optimal treatment for many patients with chronic depression. However, to date there have been no large scale, systematic, controlled trials to compare the impact of pharmacotherapy or psychotherapy with combination pharmacotherapy/psychotherapy regimens. We report here the acute phase results of a 12 site national collaborative study investigatingthe therapeutic efficacy of the nefazodone HCl and a new psychotherapy model, Cognitive Behavioral Analysis System of Psychotherapy (CBASP) for chronic depression. This project represents the. largest combined study ever undertaken in psychiatry and the first investigation of its kind involving treatment of chronically depressed outpatients. A total of 681 patients meeting DSM-IV criteria for chronic depression (chronic major depressive episode; major depressive episode superimposed on antecedent dysthymia (double depression); recurrent major depressive disorder with incomplete interepisode recovery (≥ 2 years duration)) were enrolled. Patients randomly received 12 weeks of acute phase treatment with either nefazodone monotherapy, CBASP monotherapy, or combined nefazodone and CBASP treatment. Responders to the acute phase then received 16 week of continuation phase treatment. Nonresponders to CBASP monotherapy or nefazodone monotherapy were crossed over to 12 weeks of the alternative treatment. Continuation phase responders entered a one year maintenance phase where nefazodone or combination treatment patients were randomized to double-blind nefazodone or placebo and CBASP patients were randomized to either maintenance CBASP or assessment only.

The results of the acute phase of the study demonstrated that nefazodone and CBASP monotherapy were equally and satisfactorily efficacious at week 12 (55% and 52%). However, combination therapy was not only significantly more effective than either monotherapy (85%), but resulted in higher rates of response and remission than any previously reported treatments for chronic depression. In addition, treatment with nefazodone, either as monotherapy or combination therapy, was associated with a significant earlier onset of improvement than CBASP, as well as providing significant early and sustained improvement in sleep disturbance.

References:

1. AHCPR Guidelines: Depression in Primary Care, Volume 2. Treatment of Major Depression. Clinical Practice Guideline, AHCPR, 1993; Number 5
2. McCullough JP: Cognitive-behavioral analysis system of psychotherapy: an interactional treatment approach for dysthymia. Psychiatry 1984;47:234-250

NR406 Wednesday, May 19, 9:00 a.m.-10:30 a.m. Preliminary Evidence for a Role of Phospholipase C in Genetics of Bipolar Disorder Responsive to Lithium

Martin Alda, M.D., Department of Psychiatry, Dalhousie University, 5909 Jubilee Road, Halifax NS B3M 2E2, Canada; Gustavo Turecki, M.D.,Paul Grof, M.D.,Guy A. Rouleau, M.D.,Igsli Group

Educational Objectives:

At the end of this presentation the participants should be able to recognize the importance of studying homogeneous populations in psychiatric genetic research. The presentation will further review the questions pertinent to phenotype definition in bipolar spectrum disorders and selection of candidate genes.

Summary:

In order to reduce genetic heterogeneity of bipolar disorder (BD), we have been studying patients responsive to lithium prophylaxis. Previous investigations have indicated that such patients constitute a distinct group characterized by a stronger genetic effect. Lithium is thought to stabilize mood by acting at the phosphoinositol cycle. Therefore, in this study, we investigated a polymorphism located in the gene (PLCG1) that codes for γ-1 isozyme of phospholipase C (PLC), an enzyme that plays an important role in the phosphoinositol pathway. A population-based association study was carried out in 138 BD patients, all

excellent responders to lithium prophylaxis, and in 163 ethnically similar controls. Response to lithium was evaluated prospectively with an average follow-up of 14.4±6.8 years. The allele distributions between the patients and controls were different, with a higher frequency of one of the PLCG1 polymorphisms in patients (χ^2 =8.09; p=0.004). This polymorphism, however, confers only a small risk (OR = 1. 88, CI 1. 19-3.00). In addition, the segregation of the same marker was studied in 32 families ascertained through lithium-responsive bipolar probands (224 individuals genotyped). The linkage study yielded additional modest support for the involvement of this gene in the pathogenesis of lithium responsive BD when unilineal families were considered (Max LOD= 1.45; P=0.004), but not in the whole sample. Our results indicate that the PLC isozyme may confer susceptibility to lithium-responsive BD, accounting for a fraction of the total genetic variance. Whether this polymorphism is implicated in the pathogenesis of BD or in the mechanism of lithium response remains to be determined.

Funded by grants from Canadian Medical Research Council, Ontario Mental Health Foundation and Canadian Psychiatric Research Foundation.

References:

1. Grof P, Alda M, Grof E, Zvolsky P, Walsh M: Lithium response and genetics of affective disorders. J Affect Disord 32: 85-95, 1994
2. Manji HK, Potter WZ and Lenox RH: Signal transduction pathways. Molecular targets for lithium's actions. Arch Gen Psychiatry 52: 531-543, 1995

NR407 Wednesday, May 19, 9:00 a.m.-10:30 a.m.
Nortriptyline for Treatment-Resistant Depression?

Andrew A. Nierenberg, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 812, Boston MA 02114-3117; Lindy E. Graham, B.A., Nelson Vega, B.A., Jonathan E. Alpert, M.D., John J. Worthington III, M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.

Summary:

Background: Switching from one class of antidepressants to another for patients who fail to respond is frequently used but rarely studied. We assessed the efficacy of switching patients with treatment-resistant depression to nortriptyline (NT).

Methods: We recruited 81 outpatients (mean age 40.8 ± 11.4 years; 45% female) with DSM-III-R major depression who had failed at least one but no more than five prior antidepressant trials during their current depressive episode. NT was started openly at 25 mg daily, increased to 100 mg over the next four days, adjusted for blood levels, and given for six weeks. Blood level targets were 100 ng/ml or as high as tolerated. Full response was defined as 17-item Hamilton Depression Scale (HAMD-17) score of ≤ 7; partial response was defined as a change in HAMD-17 ≥ 50%, with final HAMD-17 > 7.

Results: Mean baseline HAMD-17 score = 21.5 ± 3.8. Mean NT dose = 114.2 mg ± 33.5 mg; mean NT blood level 100.1 ± ng/ml. Twenty-five patients (30.8%) failed to complete the open phase. Out of the 81 patients who started the study, 10 (12.3%) had full and eight (9.9%) partial response.

Conclusions: These data suggest that a tricyclic antidepressant such as NT may be effective in over 22% of patients who have failed up to five antidepressants.

Supported by NIMH Grant MH46952.

References:

1. Howland RH, Thase, ME: Switching Strategies for the Treatment of Unipolar Depression, in Rush AJ (ed): Mood Disorders: Systematic Medication Management. Dallas, Karger, 1997, pp 56-65
2. Thase ME, Rush AJ,. Kasper S, Nemeroff CB: Tricyclics and newer antidepressant medications: Treatment options for treatment-resistant depressions. Depression 1995; 2; 152-168

NR408 Wednesday, May 19, 9:00 a.m.-10:30 a.m.
Effect of Depression on Health Care Utilization in Diabetes

Patrick J. Lustman, Ph.D., Department of Psychiatry, Washington University, 4940 Childrens Place/Box 8134, St.Louis MO 63110; Kenneth E. Freedland, Ph.D., Linda S. Griffith, M.S.W., Candace R. Miller, M.A., Linda D. Barnes, C.M.A., Eugene H. Rubin, M.D., Ray E. Clouse, M.D.

Educational Objectives:

1. have an increased awareness of the effects of untreated depression on HCU in type 2 diabetes
2. recognize that depression-associated increases in HCU are independent of the severity of medical illness.

Summary:

Objective: To determine the effect of depression on health care utilization in diabetes, controlling for the effects of diabetes and comorbid medical disease severity.

Method: We measured HCU over a 12-month interval in 88 patients with type 2 diabetes, 44 with and 44 without major depression per DSM-III-R criteria. Subjects were matched for age, race, duration of diabetes, type of diabetes treatment, and other comorbid medical illnesses. HCU variables included the number of primary care office visits, telephone contacts with physicians and nurses, x-rays, labs, referrals to other physicians, other procedures, hospitalizations, and medications.

Results: There were no significant differences between the groups on any matching variables. Over the 12-month measurement interval, the depressed group averaged significantly more physician phone contacts (1.2 vs. 0.4, p =0.008), had more office visits (4.7 vs. 3.7, p=0.09), and more cancelled visits (0.9 vs. 0.2, p=0.11) compared with controls. The number of nurse and pharmacy telephone contacts, x-rays, lab visits, hospitalizations, and other procedures were uniformly higher in the depressed group, but these differences were not statistically significant.

Conclusions: Depression in patients with type 2 diabetes is associated with greater health care utilization, an association that appears to be independent of the severity of medical illness.

References:

1. Lustman PJ, Griffith LS, Gavard JA, Clouse RE: Depression in adults with diabetes. Diabetes Care 15:163 1 -1639, 1992
2. Gavard JA, Lustman PJ, Clouse RE: Prevalence of depression in adults with diabetes. Diabetes Care 16:1167-1178, 1993

NR409 Wednesday, May 19, 9:00 a.m.-10:30 a.m.
Olfaction in SAD

Teodor T. Postolache, M.D., Biological Rhythms, National Institute Health, Building 10, Room 3S231, Bethesda MD 20892; Richard L. Doty, Ph.D., Thomas L. Wehr, M.D., Leo Sher, M.D.,

Erick H. Turner, M.D., Gerard E. Bruder, Ph.D., Norman E. Rosenthal, M.D.

Educational Objectives:

Should be able to appreciate the implication of nonvisual factors in the etiology of seasonal rhythms in humans, specifically, the involvement of olfactory function in SAD.

Summary:

Introduction: Because patients with SAD feel better in summer than light-treated in winter and because olfaction plays a modulatory role on seasonal rhythms in several non-human species, we hypothesized that, besides light, olfactory factors may play a role in human seasonal rhythms. We have previously reported, in depressed SAD patients, an inverse linear relationship between depression level and the olfactory identification laterality quotient (LQ), defined as the (Right-Left)/(Right+Left) monorhinal identification score. In that study, we did not find any significant difference in olfactory performance between patients and controls, or, in patients, between depressed and light-treated conditions. In the present study we set out to replicate the earlier lateralized relationship and to compare olfactory functioning in SAD patients and controls in winter and summer.

Methods: A total of 16 patients with SAD, diagnosed according to criteria of Rosenthal, et al. (7 men and 9 women, aged 42.2±11.5) and 21 healthy controls, partially matched for age and gender (11 men and 10 women, aged 38.6±11.5) were studied during the winter, when patients were depressed, and again during the summer when they were in remission. We administered phenylethyl alcohol detection threshold tests (PEA) and the University of Pennsylvania Smell Identification Test (UPSIT) on each side of the naris, with the contralateral nostril occluded. Mood was evaluated by means of the SIGH-SAD (rater based) and SAMSAD (self-report). UPSIT and PEA scores were compared in patients and controls during both seasons, using appropriate ANCOVAs, with post-hoc t-tests. In addition, a multiple regression was performed in the SAD patients in which the odor identification LQ was the dependent variable and the total depression scores, age, and sex were the independent variables.

Results: SAD patients were found to have a greater olfactory acuity than controls in the summer, as measured by the detection thresholds (left: $p<0.004$, right: $p<0.001$). In addition, a significant negative relationship was found between the odor identification LQ and total depression level, as measured by both the SAM-SAD ($p<0.01$) and SIGH-SAD ($p<0.05$).

Conclusions: These findings suggest that olfaction may be involved in seasonal emotional rhythms in humans.

References:

1. Postolache TT, Hardin T A, Myers F S,et al: Greater improvement in summer than with light treatment in winter in patients with seasonal affective disorder. Am J Psychiatry 155,1614-16
2. Postolache TT, Doty R L, Wehr T A, et al: Odor detection threshold and monorhinal odor identification in patients with seasonal affective disorder. J Affective Disorders, in press

NR410 Wednesday, May 19, 9:00 a.m.-10:30 a.m.
Secular Trends in the Seasonality of Suicides in Hungary Between 1981 and 1996

Zoltan Rihmer, M.D., Department of Psychiatry, National Institute, Hu Vosvolgyi Ut 116, Budapest 1021, Hungary; Peter Pestality, M.D., Jozsef Vitrai, Ph.D., Wolfgang Rutz, M.D.

Educational Objectives:

To recognize that lowering rate of depressive suicides may be reflected in the decreasing tendency of seasonal in suicide.

Summary:

The seasonality of suicide is a well known phenomenon: the peak occurs in spring/early summer and the low in winter. It is also well documented that more than 60% of suicide victims have (mostly untreated) depressive disorders, and the seasonality of suicide is the reflection of the seasonal nature of depressive suicides. Analyzing the seasonality of 148 suicide events on the Swedish island of Gotland between 1981 and 1996, a marked and significant seasonality (spring/summer peak, winter low) was found between 1981 and 1989, when the prescription of antidepressants was relatively low. However, this seasonality disappeared between 1990 and 1996, when the prescription of antidepressants increased to fourfold, indicating that more and more depressed patients were pharmacologically treated.

The statistical analysis of 68,699 suicide deaths in Hungary between 1981 and 1996 also showed a marked seasonality (spring/early summer peak, winter low), particularly between 1981 and 1989. This seasonality decreased substantially after 1989, while the prescription of antidepressants doubled and the suicide rate decreased by 26% in the last 10 years in Hungary. Our findings suggest that the lowering rate of depressive suicides in the population may be reflected in the decreasing tendency of seasonality in suicide.

This study was supported in part by Lundbeck AG Hungary.

References:

1. Rihmer Z, Rutz W, Pihigren H Pestahty P: Decreasing tendency of seasonality in suicide may indicate lowering rate of depressive suicides in the population. Psychiat Res 81(1998) 233-240
2. Hakko H, Räsänen P, Tiihonen J: Secular trends in the rates and seasonality of violent and nonviolent suicide occurences in Finland during 1980-95. J Affect Dis 50(1998) 49-54

NR411 Wednesday, May 19, 12 noon-2:00 p.m.
Effects of Light Therapy on Suicidal Ideation in SAD Patients

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Summary:

Objective: Recent case reports suggest that some patients with seasonal affective disorder (SAD) may become suicidal after treatment with light therapy. This study sought to determine the effects of light therapy on suicidal ideation in patients with SAD.

Methods: 191 depressed patients with SAD by DSM-III-R or DSM-IV criteria were treated with an open trial of morning light therapy (2,500 lux for two hours per day, or 10,000 lux for 30 minutes per day) for two weeks. Patients were rated before and after treatment with the expanded Hamilton Depression Rating Scale (Ham-29).

Results: 67% of patients were rated as responders to light therapy. There was significant improvement in the Ham-29 suicide item score, with most patients showing reduction (45%) or no change (52%) in score. Only six patients (3%) had slight worsening of suicide scores. No patients attempted suicide or discontinued light therapy because of suicidality.

Conclusions: Light therapy improves suicidal ideation in patients with SAD consistent with overall clinical improvement. Emergence of suicidal ideas or behaviors is very uncommon with light therapy.

NR412 Wednesday, May 19, 12 noon-2:00 p.m. Post-Discharge Compliance with Mood Stabilizers

David L. Pogge, Ph.D., Department of Psychology, Four Winds Hospital, 800 Cross River Road, Katonah NY 10536; Philip D. Harvey, Ph.D., Susan R. Borgaro, Ph.D., Anne Lloyd, Ph.D.

Summary:

A recent development in psychopharmacology is the use of antiseizure medication for the treatment of affective disorders. These medications have few side effects, demonstrated efficacy for some types of affective disorders, and are under investigation for the treatment of other conditions, such as labile affect and personality disorders. The use of these medications in adolescent patients has not been studied in much detail, however. This study examined treatment compliance after discharge from inpatient treatment for adolescents with affective disorder-diagnoses treated SSRI antidepressants, antiseizure medication, and novel antipsychotic medications. In a whole-hospital, random-selection follow-up study, 98 adolecent patients were followed up 30 and 120 days after discharge, examined for their symptom status relative to discharge, and for their treatment compliance. Sixty-five patients were treated with SSRI antidepressants, 51 with antiseizure medications, and 22 with risperidone. Treatment compliance with SSRIs was 90% at 30 days and 80% at 120 days, while compliance with risperidone treatment was 90% at 30 days and 86% at 120 days. In contrast, only 36% of the patients receiving antiseizure medication were compliant at 30 days and 28% were compliant at 120 days. No evidence of symptomatic worsening was found at follow-up as a function of medication noncompliance. These data suggest the need for increased attention to medication-specific compliance with different aspects of treatment and also suggest the need for more systematic research on the efficacy of antiseizure medication in adolescent psychiatric patients.

NR413 Wednesday, May 19, 12 noon-2:00 p.m. Vigilance and Cognition in Antisocial Adolescents

David L. Pogge, Ph.D., Department of Psychology, Four Winds Hospital, 800 Cross River Road, Katonah NY 10536; Thomas Dimitry, Ph.D., Susan R. Borgaro, Ph.D., John Stokes, Ph.D., Philip D. Harvey, Ph.D.

Summary:

There are many theories of the causes of antisocial behavior. Previous research has suggested that the impulsive behavior seen by antisocial individuals is associated with deficits in the regulatory functions of the frontal cortex. This study tested that hypothesis by comparing adolescents with severe conduct disorder requiring inpatient treatment (n=38) to outpatient controls (n=40) attending standard classes in a public high school. Subjects were compared on a comprehensive neuropsychological assessment battery that examined intelligence, executive functioning, vigilance, and secondary and working memory. The adolescents with conduct disorder scored lower in intellectual functions, but the two groups did not differ in working memory or executive functions with or without IQ covariance analysis. There was a large and statistically significant difference in vigilance performance measured with errors of omission on the Continuous Performance Test (CPT), with the conduct disordered children performing much more poorly even with IQ differences statistically controlled. There were no between-groups differences in the area of impulsive CPT responses. These data indicate that impairments in the ability to correctly respond to environmental cues may be a major feature of adolescents with severe conduct problems. Deficits in vigilance are associated with social deficits in schizophrenia and a related process may be operative in severe antisocial conditions as well.

NR414 Wednesday, May 19, 12 noon-2:00 p.m. Predictors of Short-Term Outcome in Major Depression

Elena Ezquiaga, M.D., Dept. of Psychiatry, Hosp Princesa, Diego De Leon G2, Madrid 28006, Spain; Aurelio Garcia, M.D.,Consuelo De Dios, M.D., Julieta Montejo, M.D., Fe Bravo, M.D., Ana De Leiva

Summary:

Objective: To analyze the relationship between clinical and psychosocial variables, including personality disorders and short-term outcome in major depression.

Methods: A sample of 78 consecutive outpatients, aged 18-65, referred to four mental health centers in Madrid was prospectively studied for six months. Pharmacological treatment was previously standardized.

Results: After six months of follow-up, 56.9% of patients were considered asymptomatic, 32.4% improved but without complete remission, and 10.7% persisted with severe depressive symptoms.

The following variables were associated with HDRS>8 (not complete remission): negative evaluation of self-esteem (NES), moderate to severe chronic difficulties, alcoholic abuse background, a worse quality of life at initial treatment, as well as some aspects of social support.

Variables closest related to persistent depressive symptoms (HDRS>18) were: NES (+), severe chronic difficulties, older age, and a more severe initial GCI score. There was no association between outcome and the severity of depression or with clinical variables, as well as with the presence of a personality disorder (IPDE).

Conclusions: Clinical variables have not shown a consistent association to short-term outcome in major depression. Cognitive aspects as self-esteem, chronic difficulties, and worse previous global functioning were better predictors in our study.

Personality disorders were not related to short-term outcome.

NR415 Wednesday, May 19, 12 noon-2:00 p.m. Serotonergic and Noradrenergic Function in Depression

Fabrice Duval, M.D., Department of Psychiatry, Centre Hospitalier, 27 rue du 4eme RSM, 68250 Rouffach 00110, France; Humberto Correa, M.D., M. Claude Mokrani, Ph.D., Marc-Antoine Crocq, M.D., Paul Bailey, M.D., Than Son Diep, M.D., Jean-Paul Macher, M.D.

Summary:

Objective: The present study was conducted in order to investigate the relationships between central noradrenergic (NA) and serotonergic (5-HT) function and clinical characteristics of DSM-IV major depressive episode.

Methods: We measured growth hormone response (ΔGH) to clonidine (CLO) (an alpha-2 NA agonist), as a central index of NA

function, and prolactin response (ΔPRL) to d-fenfluramine (dFEN) (a specific 5-HT releaser/uptake inhibitor), as a central index of 5-HT function, in 53 medication-free depressed inpatients.

Results: $\Delta PRL_{d\text{-}FEN}$ levels were negatively correlated with the number of suicide attempts (ρ=-0.50, p=0.0003), medical damage caused by the most severe lifetime suicide attempt (ρ=-0.57, p<0.00001), and number of previous depressive episodes (ρ=-0.33, p=0.02). ΔGH_{CLO} levels were negatively correlated with Hamilton Rating Scale scores for anxiety (ρ=-0.39, p<0.005), number of previous depressive episodes (ρ=-0.39, p<0.005), and age (ρ=-0.39, p<0.005). On the basis of their CLO and d-FEN test responses, patients were classified into four groups. A factorial correspondence analysis was used to characterize the clinical profiles of these groups. Group 1 (blunted $\Delta PRL_{d\text{-}FEN}$ alone [11%]) was characterized by a recent impulsive suicide attempt, high medical damage, and mild anxiety. Group 2 (blunted AGH_{CLO} alone [32%]) was characterized by an absence of history of suicide attempt and by severe anxiety. Group 3 (combination of blunted AGH_{CLO} and $\Delta PRL_{d\text{-}FEN}$ [18%]) was characterized by a history of suicide attempts, total duration of the illness of over ten years, age over 40 years, and more than three previous hospitalizations. Group 4 (no abnormality [39%]) had no specific clinical profile.

Conclusions: These results suggest that in depression, specific psychopathological features may be linked to 5-HT and/or NA dysfunction.

NR416 Wednesday, May 19, 12 noon-2:00 p.m.
HPA Axis Function and Serotonin Activity in Depression

Fabrice Duval, M.D., Department of Psychiatry, Centre Hospitalier, 27 rue du 4eme RSM, 68250 Rouffach 00110, France; Humberto Correa, M.D., M. Claude Mokrani, Ph.D., Marc-Antoine Crocq, M.D., Paul Bailey, M.D., Than Son Diep, M.D., Jean-Paul Macher, M.D.

Summary:

Objective: Animal studies suggest that adrenocorticosteroids and serotonergic neurons exert reciprocal regulatory actions. However, in depression the relationship between altered cortisol levels and central serotonin function remains to be clarified.

Methods: To examine this question, we studied hormonal responses to dexamethasone suppression test (DST, 1 mg orally) and d-fenfluramine test (d-FEN, 45 mg orally)—a specific 5-HT releaser/uptake inhibitor, used as a central index of 5-HT function)— in 71 drug-free DSM-IV major depressed inpatients (28 M, 43 F, mean age±SD=40.2±9.4 years) and 20 hospitalized controls (9 M, 10 F, mean age±SD=38.2±10.9 years).

Results: Depressed patients showed higher post-dexamethasone cortisol levels than control subjects (p<0.009). However, no significant difference in prolactin (PRL), adrenocorticotropic hormone (ACTH), or cortisol response to d-FEN was found between controls and patients. No significant correlation between endocrine responses to d-FEN and post- DST cortisol values in the whole population, in depressed patients, or in control subjects was found. In depressed patients, DST suppressors and DST nonsuppressors exhibited no significant difference in endocrine responses to d-FEN. Moreover, patients with blunted d-FEN test showed virtually the same post-DST cortisol values as patients with normal d- FEN test.

Conclusions: Taken together these results suggest that in depression (1) elevated cortisol levels are not responsible for reduced 5- HT activity; and conversely, (2) abnormalities in 5-HT function do not account for abnormal response to dexamethasone.

NR417 Wednesday, May 19, 12 noon-2:00 p.m.
Repetitive Transcranial Magnetic Stimulation Associate to Sertraline in Major Depression

Alicia Gonzalez, M.D., Hospital Psiquiatrico, Jesus N40, Palma De Mallorca 07003, Spain; Mauro T. Garcia, M.D., Magdalena Crespi, M.D., Antoni Mayol, Ph.D., Maria Romera, M.D., Laura De La Fuente, Ph.D., Javier Mico, M.D.

Summary:

Object: Repetitive transcranial stimulation (rTMS) could exert beneficial effects in several neuropsychiatric disorders, perhaps by forcing the restoration of "neuronal homeostasis" in cortical areas with pathologically altered activity. We report a double-blind, sham stimulation controlled, parallel-group designed study of rTMS as adjuvant treatment to sertraline in major depression.

Methods: Sixteen patients received randomized during the first two weeks, in addition to sertraline (50 mg daily), 10 real or sham rTMS sessions (30 trains of 2 s and 20 Hz at 90% motor threshold) located al left prefrontal dorsolateral cortex using a 8-shaped coil.

Results: Starting from the very similar scores, real but not sham rTMS, resulted in a significant decrease in the HDRS (t=3.8, df=7, p=0.007; Student test) at the end of the first week. Decrease in the CGI after real versus sham rTMS was also significant after the first week (0.88 versus 0.33 points; Z=-2,03; p=0.042; Man-Whitney test). Side effects were minimal and no complications were encountered.

Conclusions: Despite the shortage of the sample, real rTMS resulted in faster improvement than sham rTMS combined with sertraline.

NR418 Wednesday, May 19, 12 noon-2:00 p.m.
Depression Relapse During Long-Term SSRI Therapy

Joseph F. Goldberg, M.D., Department of Psychiatry, Payne Whitney, 420 East 76th Street, New York NY 10021; Joyce E. Whiteside, B.A., James H. Kocsis, M.D., Carrie J. Endick, B.A.

Summary:

Objective: Little is known about the frequency and characteristics of depression relapse after initial response to serotonergic antidepressants. We prospectively assessed reemergence and treatment of depression among fluoxetine responsive depressed outpatients during one year of continued monotherapy.

Methods: 45 DSM-IV unipolar depressed outpatients responsive to 10 weeks of open-label fluoxetine were followed for one-year of fixed-dose continued treatment. Depressive symptoms and clinical status were rated by Hamilton Depression and Clinical Global Impression ratings. The incidence of depression relapse and features associated with sustained versus lost remissions were examined by univariate analyses and a Cox proportional hazards model.

Results: (1) 33% of initial fluoxetine responders had recurrent depression, despite continued fluoxetine; (2) relapse occurred an average of 9.6±4.6 weeks after initial remission; (3) compared with sustained fluoxetine responders, eventual relapsers were depressed for shorter durations (p < .05), tended to have less severe depressive symptoms at baseline, and tended to respond *later* to initial treatment; (4) lost fluoxetine responses were uniformly regained either by dose increases or augmentation with the dopamine agonist pergolide.

Conclusions: Depression relapse despite ongoing SSRI pharmacotherapy arises in a substantial proportion of patients. Milder, less chronic depressions that initially remit late during acute treatment may pose a higher recurrence risk, although lost remissions may be regained by dosage increases or pharmacologic augmentations.

NR419 Wednesday, May 19, 12 noon-2:00 p.m.
Serotonin Transporter Gene-Linked Polymorphic Region and Antidepressant Response to Fluvoxamine

Raffaella Zanardi, M.D., Neuropsychiatry, H.S. Raffaele, Luigi Prinetti 29, Milan 20127, Italy; Enrico Smeraldi, M.D., Francesco Benedetti, M.D., Daniela Di Bella, M.D., Jorge Perez, M.D., Marco Catalano, M.D.

Summary:

The serotonin transporter (5-HTT) is a prime target for selective serotonin reuptake inhibitors (SSRIs). A functional polymorphism within the promoter region of the 5-HTT gene was recently reported. We tested the hypothesis that the allelic variation of the 5-HTT promoter could be related to the antidepressant response to fluvoxamine alone or in combination with pindolol, a 5-HT_{1A} antagonist that has been suggested as an augmentation therapy in depressed patients with psychotic features.

A total of 102 depressed inpatients with psychotic features were randomly assigned to treatment with a fixed dose of fluvoxamine and either placebo or pindolol for six weeks. Depression severity was assessed once a week using the Hamilton Rating Scale for Depression. Allelic variation in each subject was determined using a PCR-based method. Data were analyzed with a three-way repeated measures analysis of variance. Both homozygotes for the long variant (l/l, of the 5-HTT promoter and heterozygotes (l/s) showed a better response to fluvoxamine than homozygotes for the short variant (s/s). In the group treated with fluvoxamine plus pindolol all the genotypes acted like l/l treated with fluvoxamine alone.

Fluvoxamine efficacy in delusional depression seems to be related to allelic variation within the promoter of the 5-HTT gene.

NR420 Wednesday, May 19, 12 noon-2:00 p.m.
Repetitive Transcranial Magnetic Stimulation As Add-On Treatment in Drug-Resistant Major Depression

Mauro T. Garcia, M.D., Hospital Psiquiatrico, Jesus N40, Palma De Mallorca 07003, Spain; Henar Arnillas, M.D., Oriol Lafau, M.D., Inmaculada Capllonch, M.D., Alvaro Pascual-Leone, M.D., Olga Ibarra, M.D., Jose M. Tormos, M.D.

Summary:

Object: A growing number of studies report antidepressant effects of repetitive transcranial stimulation (rTMS) in patients with drug-resistant major depression. This randomized, double-blind study tested if rTMS is safe and useful added to the last antidepressant medication taken by the patient.

Method: 27 patients received during the first two weeks 10 active or sham rTMS sessions (30 trains of 2 s and 20 Hz, at 90% motor threshold, applied to the left prefrontal cortex using a 8-shaped coil).

Results: Real rTMS resulted in a significantly greater decrease in score in the HDRS than sham rTMS at the end of the second (7.6 versus 2.4 points; Z=-2,457; p=0,014; Man-Whitney test) but not after the fourth week (9.7 versus 2.6 points; Z= -2,29; p=0,219). Decrease in the CGI after real versus sham rTMS was significant after the second and the fourth week (0.9 versus 0.3 points; Z=-2,132; p=0,033; and 1.1 versus 0.3 points; Z=-2,122; p= 0,033). No important adverse effects were noted.

Conclusions: rTMS resulted in a significant clinical improvement, but the size of the effect was small.

NR421 Wednesday, May 19, 12 noon-2:00 p.m.
5-HT2 Receptors in Depression Pre/Post Paroxetine

Jeffrey H. Meyer, M.D., Mood & Anxiety Program, Clarke Institute of Psychiatry, 250 College Street, 11th Flr, Toronto ON M5T 1R8, Canada; Shitij Kapur, M.D., Gregory M. Brown, M.D., Beata Eisfeld, B.Sc., Sidney H. Kennedy, M.D., Sylvain Houle, Ph.D.

Summary:

Objective: The purpose is to evaluate 5-HT_2 receptors in depression before and after treatment with paroxetine.

Method: Fourteen depressed subjects were recruited. Exclusion criteria for patients included antidepressant medication use within six months, a history of suicide attempts within the past five years, other current Axis I disorders, including bipolar disorder, and the presence of psychotic symptoms. Using [^{18}F] setoperone and positron emission tomography (PET), 5-HT_2 receptor binding potential was assessed within the prefrontal cortex before and after six weeks of treatment with paroxetine at 20mg/day.

Results: Using repeated measures analysis of varience, the change in 5-HT_2 receptor binding potential was analyzed. No significant changes were found, (p=0.3).

Conclusions: This negative finding indicates that there is not a homogenous change in 5-HT_2 receptor binding potential in the prefrontal cortex after paroxetine treatment in depression. Further work will examine the effect of treatment response upon 5-HT_2 receptor binding potential changes.

Supported by the Medical Research Council of Canada, the Canadian Psychiatric Research Foundation and National Alliance for Research on Schizophrenia and Depression.

NR422 Wednesday, May 19, 12 noon-2:00 p.m.
Sexual Dysfunction Before and After Moclobemide, Paroxetine, Sertraline and Venlafaxine

Sidney H. Kennedy, M.D., Department of Psychiatry, Clarke Institute, 250 College Street Room 1125, Toronto, ONT M5T 1R8, Canada; Susan Dickens, M.A., Beata Eisfeld, B.Sc., R. Michael Bagby, Ph.D.

Summary:

With the increased focus on antidepressant-induced sexual dysfunction particularly in relation to SSRIs, there has been a tendency to neglect the initial level of sexual dysfunction (SD) in patients with major depression (MD) prior to starting antidepressant treatments. The purpose of this study is to define the frequency of SD in antidepressant-free male and female patients with MD and to examine the relationship between sexual dysfunction and gender, personality, drug selection, and treatment response. One hundred thirty-four patients agreed to complete structured measures of diagnosis (SCID), mood change (HRSD), personality (NEO-PI-R), and sexual function (SFQ) before and during treatment for at least eight weeks with moclobemide, paroxetine, sertraline, or venlafaxine under standard clinical conditions. Results indicated predominantly desire and arousal difficulties in the drug-free depressed state. Men reported significantly greater drug-induced impairment in desire, arousal,

and orgasm compared with women. Patients taking paroxetine and sertraline experienced the highest degree of sexual dysfunction, followed by venlafaxine, and finally, moclobemide. This trend was seen for desire, arousal, and orgasm difficulties. Nonresponders reported significantly greater levels of dysfunction in all areas. These results not only provide further evidence that sexual dysfunction can be caused by depression and by antidepressants, but they also emphasize the effect that sexual dysfunction can have on treatment response.

NR423 Wednesday, May 19, 12 noon-2:00 p.m.
TRH-TSH Test in First-Episode Major Depression

Luis Risco, M.D., Department of Psychiatry, University of Chile, Avenida La Paz 1003, Santiago, Chile; Hernan Silva, M.D., Fernando Lolas, M.D., Claudio Liberman, M.D.

Summary:

Objective: To evaluate the hypothalamic-pituitary-thyroid axis function in first-episode major depressive disorder patients that have not received prior antidepressive treatment.

Method: A sample of 30 outpatients (17 male and 13 female), mean age 30.6 years, diagnosed according to DSM-IV criteria as major depressive disorder, single severe episode, without psychotic features, were studied. These patients had not received antidepressives and had Hamilton depression scale scores of 15 or higher. T3,T4, free T4, and basal TSH were measured, and T3 and TSH response was determined after TRH 200 ug IV.

Results: 10 patients (33%) had a ΔTSH lower than 5 at 30 minutes; five patients (16.7%) had a negative ΔT3 at 120 minutes. Men had a lower ΔTSH at 30 minutes than women (5.61±3.6 versus 10.53±3.3; p=0.001). On the other hand, women had a lower basal free T4 than men (1.29±0.2 versus 1.52±0.2; p=0.015).

Conclusions: These results suggest that thyroid abnormalities in major depressive disorder are already present in the first depressive episode and differ in men and women. This makes unlikely that illness course and/or use of medications explains these findings.

NR424 Wednesday, May 19, 12 noon-2:00 p.m.
Nondepressive Disorders in Outpatients with MDD

Mark Zimmerman, M.D., Department of Psychiatry, Rhode Island Hospital, 235 Plain Street, Suite 501, Providence RI 02905; Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

Summary:

Objective: Most studies of psychiatric patients examining comorbidity associated with depression have been limited to a single nondepressive disorder. Very few studies have examined the frequency of a broad range of nondepressive disorders in psychiatric outpatients with major depressive disorder. The purpose of this study was to examine the prevalence of current nondepressive Axis I disorders in a large sample of psychiatric outpatients with DSM-IV unipolar major depressive disorder (MDD).

Methods: Three hundred fourteen psychiatric outpatients with a principal diagnosis of DSM-IV nonpsychotic, unipolar MDD were interviewed with the Structured Clinical Interview for DSM-IV (SCID).

Results: The depressed patients had an average of 1.5 current nondepressive Axis I disorders. Only 30% of the patients had MDD as their sole current Axis I diagnosis. More than 40% of the patients had two or more current nondepressive disorders, 20.7% had at least three other current diagnoses, and 10.2% had four or more current nondepressive disorders. By far, anxiety disorders were the most frequent comorbid condition (54.1%). Less than 10% of patients had a comorbid substance use disorder (7.3%), eating disorder (7.0%), somatoform disorder (7.6%), or impulse control disorder (5.1%). The most frequent specific diagnoses were social phobia (29.9%), panic disorder (16.2%), generalized anxiety disorder (15.9%), and post-traumatic stress disorder (12.4%).

Conclusions: Most psychiatric outpatients presenting for the treatment of depression have one or more comorbid nondepressive disorders. This highlights the importance of conducting thorough diagnostic evaluations in depressed patients.

NR425 Wednesday, May 19, 12 noon-2:00 p.m.
Are Patients in Pharmacological Treatment Trials of Depression Representative of Patients in Routine Clinical Practice?

Mark Zimmerman, M.D., Department of Psychiatry, Rhode Island Hospital, 235 Plain Street, Suite 501, Providence RI 02905; Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

Summary:

Objective: The purpose of this study was to determine the percentage of depressed patients treated in routine clinical practice that would meet the inclusion and exclusion criteria typically used in industry-sponsored studies of drug efficacy.

Methods: Eight hundred eighty patients seen in the Rhode Island Hospital psychiatry outpatient practice were interviewed with the Structured Clinical Interview for DSM-IV (SCID), supplemented with questions from the Schedule for Affective Disorders and Schizophrenia (SADS). From the SADS ratings an extracted Hamilton Depression Rating Scale (HRS) score was computed. Three hundred forty-six patients met DSM-IV criteria for a major depressive episode as their principal diagnosis. Psychiatric inclusion and exclusion criteria examined were diagnostic subtype (history of mania/hypomanic episodes, presence of current psychotic features), level of severity on the HRS, level of suicidal ideation, and presence of diagnostic comorbidity (substance use and anxiety disorders).

Results: Thirty-one (8.9%) patients had bipolar I or II disorder, and 22 (6.4%) of the unipolar patients had psychotic features. Of the remaining 293 nonpsychotic, unipolar depressed patients, 42% scored below 18 on the extracted HRSD, 8.2% scored three or higher on the SADS suicidal ideation item, 7.8% had a current substance use disorder, and 53.2% had a current anxiety disorder. Accounting for all inclusion/exclusion criteria simultaneously, 61 (17.6%) of the 346 depressed patients would have qualified for an efficacy trial.

Conclusions: The overwhelming majority of depressed patients seen in routine clinical practice would not meet the inclusion and exclusion criteria typically used in studies establishing the efficacy of antidepressant medications. This raises questions about the generalizability of the results of efficacy studies to depressed patients treated in real-world clinical practice.

NR426 Wednesday, May 19, 12 noon-2:00 p.m.
Sildenafil Citrate for Erectile Dysfunction and Depression

Matthew A. Menza, M.D., Department of Psychiatry, RWJ Medical School, UBHC, Rm D207A/675 Hoes Lane, Piscataway NJ 08854; Steven P. Roose, M.D., Stuart N. Seidman, M.D., Raymond Rosen, Ph.D., Ridwan Shabsigh, M.D., Diane M. Chow, Richard L. Siegel, M.D.

Summary:

Objectives: Erectile dysfunction (ED) and depression are highly prevalent conditions that are frequently comorbid; however, the causal relationship is unclear. This study assessed symptoms of depression in men with ED and untreated subthreshold major depression in a randomized, controlled trial of sildenafil citrate (VIAGRA®) versus placebo.

Methods: A total of 146 men who presented to urologists with ED and had 24-item Hamilton Depression Rating Scale (HAM-D) scores ≥12 were randomized to receive flexible-dose sildenafil (Sild; 25-100 mg; N = 70) or placebo (Pbo; N = 76) for 12 weeks in a double-blind trial. Patients were classified as responders for ED if they (a) answered "yes" to two global efficacy questions that asked whether treatment improved erections and the ability to have sexual intercourse and (b) had erectile function (EF) domain scores of 22-30 (range 1-30; higher scores indicate better EF) on the International Index of Erectile Function questionnaire. Symptoms of depression were assessed at baseline and after eight and 12 weeks of treatment using the HAM-D, Beck Depression Inventory (BDI), and Clinical Global Impression (CGI) scales.

Results: Results (intention-to-treat) at week 12 were:

	Mean (±SE) HAM-D	Mean (±SE) BDI	Mean (±SE) CGI	Total N	Sild N	Pbo N
Baseline	16.7(0.3)	15.6(0.7)	—	136	66	70
ED responders (wk 12)	6.4 (0-8)*	6.4 (0.9)*	1. 8 (0.2)*	58	48 (83%) †	10 (17%) †
ED nonresponders (wk 12)	14.2(0.9)	13.7(l.0)	3.7(0.2)	78	18 (23%) †	60 (77%) †

*P,0.000 1 vs ED nonresponders (ANCOVA); † P=0.001 for treatment effect (chi-square).

Conclusions: After 12 weeks of treatment, patients classified as ED responders had significant improvements in mean HAM-D, BDI, and CGI scores compared with patients classified as ED nonresponders. Among ED responders, 83% were treated with sildenafil and 17% were treated with placebo.

Funded by Pfizer Inc.

NR427 Wednesday, May 19, 12 noon-2:00 p.m. Hospital Management of Manic and Hypomanic States

Francois Borgeat, M.D., Department of Psychiatry, University Hospital, Site De Cery, Prilly Lausanne 1008, Switzerland; Daniele Zullino, M.D.

Summary:

Objective: The objective of the study was to determine the level of involuntary treatment that mood disorder patients and their families wish in the event of a manic or hypomanic episode.

Method: A survey was conducted within a convention of 400 mood disorder patients, families, and some caregivers. A clinical vignette depicting an uncollaborative hypomanic patient beginning to jeopardize his professional and financial situation and to put undue stress upon his family was presented. The level of coercive treatment seen as appropriate was assessed by visual analog scales on a eight-item questionnaire.

Results: Involuntary treatment and hospitalization were deemed preferable to treatment refusal by a majority of the 231 responders without difference between patients, relatives, and caregivers. The only difference of opinion was on the issue of financial protection where patients and relatives differed from caregivers by being more interventionist.

Conclusion: Most responders (including a majority of patients) support a moderate degree of coercive treatment in the event of a hypomanic or manic state. Surveys of opinions from concerned people could influence practice, legislation, and possibly advanced-directives that could be written by patients or patient organizations.

NR428 Wednesday, May 19, 12 noon-2:00 p.m. Olanzapine Versus Placebo: Antimanic Effect and Cognitive Function in Psychotic and Nonpsychotic Bipolar I Patients

Mauricio F. Tohen, M.D., MC 541, Eli Lilly and Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Thomas Jacobs, MAS, Kimberley S. Gannon, Ph.D., Todd M. Sanger, Ph.D., Verna M. Toma, B.S., Gary D. Tollefson, M.D.

Summary:

Objective: Antimanic efficacy and cognitive functioning were assessed in bipolar I patients (N= 139), with and without psychotic features, treated with olanzapine (average modal dose 14.9 mg/day) or placebo during a three-week, double-blind, randomized study.

Method: All patient diagnoses were based on DSM-IV criteria. Manic symptom severity was assessed using the Young-Mania Rating Scale (Y-MRS) and cognitive function was measured using the Positive and Negative Syndrome Scale (PANSS) cognitive component, an independently validated measure of cognitive impairment (Bell, et al., 1994). An additional PANSS factor, hostility, was also analyzed.

Results: With respect to antimanic efficacy, olanzapine was statistically superior to placebo on the Y-MRS total score mean change from baseline (-10.3 vs -4.9, respectively; p=.019); there was no significant difference in antimanic response based on the presence or absence of psychotic symptoms (treatment by subgroup interaction, p=.880). Olanzapine-treated patients experienced a greater improvement on the PANSS cognitive component than did placebo-treated patients (-3.34 vs. -1.36, respectively; p=.019). In addition, mean reduction from baseline on the PANSS hostility factor was significantly greater in the olanzapine group compared with the placebo group (-2.54 vs -0.27, respectively; p=.010). No significant difference was found between psychotic and nonpsychotic patients on the PANSS cognitive component or hostility factor mean change from baseline (p=.543 and p=.646, respectively).

Conclusions: Relative to placebo, olanzapine provided significantly superior antimanic efficacy (Y-MRS), improvement of cognitive functioning (PANSS cognitive), and reduction of hostility (PANSS hostility) in psychotic and nonpsychotic bipolar patients.

NR429 Wednesday, May 19, 12 noon-2:00 p.m. Olanzapine Versus Haloperidol in Schizoaffective Bipolar Disorder: A Repeated-Measures Analysis

Mauricio F. Tohen, M.D., MC 541, Eli Lilly and Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Fan Zhang, Ph.D., Todd M. Sanger, Ph.D., Kimberley S. Gannon, Ph.D., Gary D. Tollefson, M.D.

Summary:

Objective: This study examined the efficacy of olanzapine versus haloperidol in the treatment of schizoaffective, bipolar type patients.

Method: In a subsample of patients of a large multicenter, double-blind study comparing olanzapine with haloperidol, 177 patients with schizoaffective disorder, bipolar type, currently manic (N=28), currently mixed (N=47), currently depressed (N=53), and currently euthymic (N=49) were assessed with the Brief Psychiatric Rating Scale (BPRS) at baseline and then weekly for six weeks. Five items of the BPRS scale (euphoria, hyperactivity, agitation, irritability, and psychosis) comprised the BPRS Mania score. A repeated measures analysis of the BPRS Mania score was performed on each subgroup of patients (manic, mixed, depressed, and euthymic) diagnosed with schizoaffective disorder, bipolar type. In addition, patients were assessed using the Montgomery Asberg Depression Rating Scale (MADRS) at baseline and only at week 6.

Results: Currently manic patients randomized to olanzapine had an average reduction in BPRS Mania score of 1.13 per week compared with a reduction of 0.53 for the haloperidol group (p=.075); currently depressed patients treated with olanzapine had an average reduction of 0.57 per week compared with an increase of 0.11 for the haloperidol-treated group (p=.028). Analysis of the MADRS score (mean change from baseline) indicated that currently depressed patients treated with olanzapine had an average reduction of 8.57 compared with an increase of 6.63 for the haloperidol-treated patients (p=.0001).

Conclusions: Compared with haloperidol, olanzapine produced a greater reduction of manic symptoms (BPRS Mania score) in patients with schizoaffective disorder, bipolar type, currently manic or currently depressed and a greater reduction of depressive symptoms (MADRS) in patients with schizoaffective disorder, bipolar type, currently depressed. Overall, results indicate that olanzapine appears to have mood-stabilizing properties in this patient population.

NR430 Wednesday, May 19, 12 noon-2:00 p.m. Fluoxetine Versus Sertraline and Paroxetine in Major Depression: Long-Term Changes in Weight

Maurizio Fava, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 812, Boston MA 02114; Jerrold F. Rosenbaum, M.D., Rajinder A. Judge, M.D., Sharon L. Hoog, M.D., Denni Millard, M.S., Stephanie Koke, M.S.

Summary:

Objective: To assess the effects of extended SSRI treatment on weight, and to examine whether different agents have differential effects.

Methods: Patients with major depression were randomly assigned to double-blind treatment with fluoxetine, sertraline, or paroxetine. Patients whose symptoms responded within six to 12 weeks of active treatment continued treatment for a total of 26-32 weeks. The mean percent change in weight was compared for each group, as was the number of patients who had ≥7% weight increase from baseline.

Results: Patients (fluoxetine, 44; sertraline, 48; paroxetine, 47) who completed the trial were included in these analyses. Paroxetine-treated patients experienced a significant weight gain from baseline to endpoint, fluoxetine-treated patients had a modest but nonsignificant decrease in weight, and patients treated with sertraline had a modest but nonsignificant increase in weight. Among treatments, the number of patients whose weight increased ≥7% from baseline was significantly greater for paroxetine-treated compared with either fluoxetine-treated or sertraline-treated patients.

Conclusion: Extended treatment with an SSRI (fluoxetine, sertraline, or paroxetine) is associated with different risks for weight gain. Patients treated with fluoxetine or sertraline experienced no significant change in weight. Paroxetine treated patients experienced significant weight gain, and statistically significantly more patients treated with paroxetine than either fluoxetine or sertraline experienced ≥7% weight gain.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR431 Wednesday, May 19, 12 noon-2:00 p.m. An Open-Label Study with Mirtazapine in Depressed Patients Who Are SSRI Treatment Failures

Maurizio Fava, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 812, Boston MA 02114; David L. Dunner, M.D., John H. Greist, M.D., Sheldon H. Preskorn, M.D., Madhukar H. Trivedi, M.D., John M. Zajecka, M.D., Miriam Cohen, Ph.D.

Summary:

Objective: Mirtazapine is a unique antidepressant with potent antagonistic properties at the presynaptic α_2 receptors and postsynaptic 5-HT_2 and 5-HT_3 serotonergic receptors. This study compared the efficacy, safety, and tolerability of mirtazapine in depressed outpatients who were refractory to or intolerant of selective serotonin reuptake inhibitor (SSRI) therapy.

Patients and Methods: Outpatients with DSM-IV major depressive disorder were treated with mirtazapine for eight weeks after: (1) failing to respond to usual therapeutic doses of SSRIs (fluoxetine, paroxetine, or sertraline), or (2) failing to tolerate SSRI therapy during the first four weeks of treatment. The SSRI-treated patients were treated for ≤ 6.4 months at their final dose (median = 40 days). Patients were randomized to a double-blind washout (four days of placebo) or non-washout (continued on minimum effective dose of SSRI) period prior to receiving open-label mirtazapine, 15-45 mg. Treatment response was defined as ≥ 50% reduction in HAM-D_{17} scores throughout the eight weeks of treatment with mirtazapine. The safety and tolerability to mirtazapine treatment also were monitored and recorded throughout the study.

Results: Ninety-four patients (56 female, 38 male), aged 44.5 ± 12.9 (mean ± SD) years, were treated with 24.9 mg to 28.4 mg of mirtazapine for eight weeks. At week 8, 47% (44/94) of the mirtazapine-treated patients responded to treatment (≥ 50% reduction in HAM-D_{17}), and the response rate was similar for the washout (47%; 21/45) and non-washout (47%; 23/49) groups. The overall dropout rate in the open-label phase due to adverse events was 25%, and the dropout rate was similar for both the washout (29%) and non-washout (21%) groups. However, the dropout rate appeared to be partly affected by withdrawal effects, which primarily occur in patients discontinuing from the shorter half-life SSRIs paroxetine or sertraline, as suggested by four dropouts attributed to nervousness.

Conclusion: These data suggest that switching SSRI-failure patients to mirtazapine treatment is a safe and effective pharmacotherapeutic strategy. In addition, there is no evidence to show that an SSRI washout period is necessary or beneficial in these patients.

NR432 Wednesday, May 19, 12 noon-2:00 p.m. Bipolar II Depression in Late Life: Prevalence and Clinical Features in 525 Depressed Outpatients

Franco Benazzi, M.D., Department of Psychiatry, Public Hospital, Via Pozzetto 17, Castiglione Cervia RA 48015, Italy

Summary:

Objective: The aim of the study was to find the prevalence of late-life (50 years or more) bipolar II depression among unipolar and bipolar depressed outpatients and to compare it with bipolar II depression in younger patients.

Method: 525 consecutive major depressive episode patients were interviewed with the Structured Clinical Interview for DSM-IV, the Montgomery Asberg Depression Rating Scale, and the Global Assessment of Functioning Scale.

Results: Bipolar II depression was present in 53.4% of patients less than 50 years and in 32.9% of patients 50 years or older (p=0.0000). Atypical features were present in 60.9% of bipolar II patients younger than 50 years, and in 26.1% of those 50 years or older (p=0.0000). Bipolar II patients 50 years or older had higher age at onset than those younger than 50 years (37.2 vs. 23.0 y, p<0.0001). Bipolar II and unipolar patients 50 years or older were not significantly different, apart from comorbidity. Bipolar II patients younger than 50 years had significantly more atypical features than unipolar ones.

Conclusions: Bipolar II depression and atypical features are less common in late life. Differences in age at onset and atypical features support the subtyping of bipolar II depression according to age at onset.

NR433 Wednesday, May 19, 12 noon-2:00 p.m. Prevalence of Bipolar II Disorder in Atypical Depression

Franco Benazzi, M.D., Department of Psychiatry, Public Hospital, Via Pozzetto 17, Castiglione Cervia RA 48015, Italy

Summary:

Objective: Studies on atypical depression have often not included bipolar patients. The aim of this study was to find the prevalence of bipolar II disorder among DSM-IV atypical depression outpatients, and to compare bipolar II with unipolar atypical depression, to find if they are variants of the same disorder or if they are distinct disorders.

Method: 140 consecutive unipolar and bipolar II atypical major depressive episode outpatients were interviewed with the Structured Clinical Interview for DSM-IV, the Montgomery Asberg Depression Rating Scale (MADRS), and the Global Assessment of Functioning Scale.

Results: Prevalence of bipolar II disorder was 64.2%. Age at baseline and onset were significantly lower in bipolar II than in unipolar patients (36.7 vs. 44.5 y, p=0.0009; 24.1 vs. 29.9 y, p=0.0052). MADRS items, duration of illness, severity, gender, psychosis, comorbidity, chronicity, and recurrences were not significantly different.

Conclusions: Prevalence of bipolar II disorder among atypical depressed outpatients was higher than previously reported. Different age at onset supports the subdivision of atypical depression into a bipolar II and a unipolar subtype.

NR434 Wednesday, May 19, 12 noon-2:00 p.m. Mania in Women

Jose de Leon, M.D., Department of Psychiatry, University of Kentucky, 627 West 4th Street/ESH, Lexington KY 40508-1207; Ana Gonzalez-Pinto, M.D., Berta Lalaguna, Blanca Corres, M.D., Juan L. Figuerido-Poulain, M.D., Jose L. Perez de Heredia, M.D., Fernando Mosquera, M.D.

Summary:

Objective: This study tests for gender differences in a sample of bipolar I patients admitted to a psychiatric unit in a general hospital in a Basque state, Alava (North of Spain).

Method: The catchment area of the state includes 340,000 people. All acute psychiatric patients are admitted to one acute psychiatric unit located in a hospital of the National Health System. Between March of 1997 and September of 1998, all 82 patients who met DSM-IV criteria for manic or schizomanic episode were included. Patients were assessed with the SCID-P, the PANSS, the Young scale for mania, the Hamilton depression scale, the Phillips premorbid scale, and the CGI. McElroy's criteria for dysphoric mania were also used.

Results: Thirty-seven patients were female (45%) and 45 were male (55%). At admission, females had significantly lower scores in the PANSS positive scales and fewer Schendierian symptoms. At discharge, they had lower mania scores in the Young scale. Premorbid functioning was also better in females. Dysphoric mania was more frequent in females. Females had longer hospitalizations.

Conclusions: During manic episodes, women had less psychotic symptoms but they had more depressive symptoms. Female patients needed longer hospitalizations stays although they had better premorbid functioning.

NR435 Wednesday, May 19, 12 noon-2:00 p.m. Reboxetine Prevents Relapse and Recurrence in Depression

Marcio V. Versiani, M.D., Department of Psychiatry, Federal Univ. Rio de Janeiro, R. Visconde de Piraja 407/805, Rio de Janeiro 22410-003, Brazil

Summary:

Objectives: Continuation/maintenance therapy following the relief of acute symptoms in the treatment of depression may reduce the rate of relapse and recurrence; however, not all antidepressants are effective or well tolerated long term. The efficacy and tolerability of reboxetine, a selective noradrenaline reuptake inhibitor, in long-term treatment was assessed.

Methods: Adult and elderly patients with major depressive disorder responding to six weeks' reboxetine treatment (6-8 mg/day adults; 4-6 mg/day elderly) were enrolled in one placebo-controlled study (n=283), or one of two open studies (n=209 and n=160) for≤12 months. Efficacy was assessed using the HAM-D and CGI-Global Improvement scale.

Results: In the placebo-controlled study, relapse/recurrence rates were 22% and 56% in the reboxetine and placebo groups, respectively. Relapse rates of 14.8% and <1% were reported in the open studies. In patients who entered long-term treatment, remission rates at last assessment were between 73%-78% in the three studies. At baseline, mean HAM-D total scores were 24.0-29.2 points compared with 6.8-8.7 points at last assessment. The majority of adverse events occurred in the first four weeks of treatment and were mild to moderate in severity.

Conclusions: Reboxetine is effective and well tolerated in the long-term treatment of adult and elderly patients with depression.

Funded by Pharmacia and Upjohn.

NR436 Wednesday, May 19, 12 noon-2:00 p.m. Quality-of-Life Improvement with Lamotrigine Treatment of Bipolar Depressed Patients

Lynda Bryant-Comstock, M.P.H., Global Health Outcomes, Glaxo

Wellcome, Five Moore Drive, RTP NC 27709; Chai-Ni Chang, M.S., Seren Phillips, M.Sc.

Summary:

Objective: There is a growing awareness of the importance of evaluating the benefits of therapeutic interventions from the patient's perspective. The research objective was to assess the impact of symptoms and treatment on patient quality of life using the Quality of Life in Depression Scale (QLDS).

Methods: This was a 10-week multicenter, double-blind comparison of lamotrigine (n=95) vs. placebo (n=91) in which safety, efficacy, and quality of life were measured at baseline, and day 15, 29, 43, and 71 in bipolar depressed patients. Analysis for the QLDS was performed using repeated measures ANOVA on the change from baseline score.

Results: Total mean scores for both treatment groups (LTG and PB0) decreased at each assessment period (except for day 29 for PB0), indicating overall improvement in patient-rated quality of life. However, the LTG group had a greater and statistically significant improvement compared with PB0 (p=0.012). Additional analysis demonstrated a strong trend of significance at the end of treatment (day 71 between groups in favor of LTG (p=0.056).

Conclusion: In the first treatment comparison study of bipolar depressed patients using the Quality of Life in Depression Scale, results demonstrate that lamotrigine was more effective in improving quality of life than was placebo.

Supported by Glaxo Wellcome Inc.

NR437 Wednesday, May 19, 12 noon-2:00 p.m. Impact of Pathological Alcohol Use on Acute Mania

Ihsan M. Salloum, M.D., Department of Psychiatry, University of Pittsburgh, 3811 O'Hara Street, Pittsburgh PA 15213; Jack R. Cornelius, M.D., Levent Kirisci, Ph.D., Juan E. Mezzich, M.D., Crystal R. Spotts, M.Ed., Dennis C. Daley, M.S.W.

Summary:

Objectives: The aim of this study was to evaluate the impact of pathological alcohol use on mood symptoms of acutely manic patients at the time of their initial presentation for psychiatric care.

Method: Two hundred and fifty-six subjects were selected from consecutively evaluated patients who met study inclusion criteria of a DSM-III diagnosis of bipolar disorder with acute manic episode. The severity of concurrent pathological alcohol use among these patients was rated on a four-point severity scale, from absent to severe. The impact of pathological alcohol use on mood-related symptom presentation at initial evaluation was assessed by comparing acutely manic bipolar patients without any current alcohol use (n=196) to those who currently reported pathological alcohol use (n=60).

Results: The results revealed that bipolar patients with current pathological alcohol use were predominantly males and of younger age group than the non-alcohol abusing patients. Age and gender controlled analysis revealed that acutely manic patients with pathological alcohol use presented with significantly higher number of overall symptoms than the non-alcohol abusing manic patients (mean = 16.33, sd=5.50 vs. mean=13.05. sd=6.27, t=-3.645, df=1/254, p=0.000). They had a significantly higher number of manic symptoms (mean=15.05, sd=5.90 vs. mean=12.28, sd=6.43, F=9.67, df=1/250, p=0.002), as well as depressive symptoms (mean = 11.26, sd=5.58 vs. mean=9.44, sd=4.85, F=7.11, df=1/250, p=0.008). Furthermore, they reported more severe symptoms of impulsivity, violent behavior, increased libido, general anxiety, poor concentration, and bizarre behavior. They were also more likely to use other drugs and report antisocial behavior.

Conclusions: These results suggest that acutely manic patients with pathological alcohol use are highly symptomatic with an increase in both the number and severity of symptoms. Furthermore, they may present with problematic violent behavior as well. This clinical presentation may impact on treatment and service need in terms of requiring higher intensity of services such as costly inpatient treatment.

Supported in part by NIAAA (AA- 10523), and NIDA (DA-09421).

NR438 Wednesday, May 19, 12 noon-2:00 p.m. Depressive Symptom Profile in Adults and Adolescents

Paul J. Ambrosini, M.D., Department of Psychiatry, MCP Hahnemann University, 3200 Henry Avenue, Philadelphia PA 19129; Adam Hauser, B.A., Michael D. Bianchi, M.D., Josephine Elia, M.D., Harris Rabinovitch, M.D.

Summary:

Objectives: This study assesses whether clinician-rated and patient-rated depressive symptom severity and frequency is similar in adolescent and adult major depressives.

Methods: 60 adolescents and 54 adults were diagnosed with major depressive disorder (MDD) by the Childhood Version of the Schedule for Affective Disorders and Schizophrenia, which is keyed to Research Diagnostic Criteria (RDC). Clinicians and patients completed a Hamilton Depression Rating Scale (HDRS) and a Beck's Depression Inventory (BDI), respectively.

Results: Overall depression severity measured by the HDRS, the BDI, and Depression Severity Scale (summary of RDC symptoms), and GAS were similar across ages. While actively depressed, only suicidal ideation severity (HDRS: 2.2 vs. 1.2; BDI: 1.3 vs. 0.6; RDC 3.3 vs. 2.1) and frequency (62% vs. 28%) were significantly greater in adolescence, adults were significantly more socially avoidant (43% vs. 74%). On all three measures the severity of suicidal ideation significantly decreased with age. Suicidal attempts/gestures were similar in the groups. These findings were not influenced by gender.

Conclusion: Depressive symptom severity and frequency are similar in adults and adolescents with MDD except for suicidal ideation and social avoidance. These differences were not accounted for by depression severity or gender and appear age-dependent characteristics of MDD.

NR439 Wednesday, May 19, 12 noon-2:00 p.m. Antidepressant Profile of Lamotrigine Treatment of Bipolar Disorder

R. Bruce Lydiard, M.D., Department of Psychiatry, Medical University of SC, 171 Ashley Avenue, Suite 404, Charleston SC 29425; Jeffrey T. Apter, M.D., Charles L. Bowden, M.D., Joseph R. Calabrese, M.D., J. Downs, M.D., John A. Ascher, M.D., Richard H. Weisler, M.D.

Summary:

Objective: Bipolar depression is less well characterized than its unipolar counterpart. A recent placebo-controlled monotherapy protocol (study #602) demonstrated efficacy for two lamotrigine doses compared with placebo in bipolar I patients, Individual depression, rating scale items were examined to profile the activity of lamotrigine on depressive symptoms in this study.

Methods: One hundred ninety-two outpatients were recruited with DSM-IV diagnoses of bipolar I disorder, current episode depressed, and HAM-D (17-item) total scores of at least 18 at entry. Subjects were randomized to one of three parallel groups: placebo, lamotrigine 50mg and lamotrigine 200mg for seven weeks. Study visits were conducted at least weekly and included efficacy (HAM-D, MADRS, and CGI) and safety measures.

Results: Lamotrigine 50 and 200mg/day showed evidence of antidepressant efficacy in this population as assessed by a variety of depression and global measures. At endpoint, statistical significance compared with placebo was noted for the following scale items: HAM-D depressed mood, psychic anxiety, worthlessness; MADRS–reported sadness, inner tension, lassitude, inability to feel: and suicidal thoughts.

Conclusions: The profile of antidepressant response for lamotrigine in this group of bipolar I patients suggests particular efficacy on the affective and cognitive aspects of bipolar depression.

Research funded by Glaxo Wellcome.

NR440 Wednesday, May 19, 12 noon-2:00 p.m.
Trichotillomania Among Depressed Adults: Prevalence and Psychiatric Comorbidity

Richard L. O'Sullivan, M.D., Department of Psychiatry, Massachusetts General Hospital, CNY-9, Bldg 149, 13th Street, Charlestown MA 02129; Leena Kizilbash, M.D., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., Nancy J. Keuthen, Ph.D., Maurizio Fava, M.D.

Summary:

Objective: The prevalence of trichotillomania (TTM) is typically underappreciated due to the secretive nature of the disorder, but is estimated to affect approximately 1%-3% of the population. High rates (50-60%) of comorbid mood and anxiety disorders have been found in several series of patients presenting for TTM treatment. There are no studies to date systematically assessing a large cohort of patients with major depressive disorder (MDD) for the presence of TTM. Our aim was to characterize the prevalence and Axis I comorbidity of DSM-III-R-defined TTM among a cohort of adults presenting with MDD.

Methods: We assessed symptoms of trichotillomania as defined by DSM-III-R among 302 adults with MDD aged 18-64 consecutively enrolled in an antidepressant treatment trial. The Structured Clinical Interview for DSM-III-R Patient Edition (SCID-I/P) was administered to all subjects at baseline. Exclusion criteria included bipolar, psychotic, and organic mood disorders, substance abuse/dependence within the past 12 months, and unstable medical illness.

Results: Fifteen adults (60% female), constituting 5% of the total sample, reported clinically significant hair pulling. Among those, four (1.3%) met full DSM-III-R criteria for TTM. Anxiety disorders were highly prevalent (80%) as comorbid conditions, followed by dysthymia (33%), alcohol/substance abuse disorders (27%), and somatoform disorders (20%).

Conclusions: Trichotillomania, while highly comorbid with mood and anxiety disorders, appears less commonly in patients presenting for depression treatment when compared with rates of depression for patients presenting with TTM. Rates for clinically significant hair pulling in the sample were comparable to those previously noted in limited prevalence data on TTM. Patients endorsing symptoms of trichotillomania in a depressed cohort were distinguished by a particularly high prevalence of Axis I comorbidity, especially anxiety disorders.

NR441 Wednesday, May 19, 12 noon-2:00 p.m.
Optimal Regimen of Phototherapy for Seasonal Depression

Ahmed A.R. Mubarak, M.D., Neuropsychiatry, Tanta University, 27 Darb Elebshihi Street, Tanta GHR 31111, Egypt; El Sayed Gad, M.D., Ahmed Soffar, Ph.D.

Summary:

Objectives: Finding the optimal method of phototherapy for seasonal and nonseasonal depression, and its effect on serum melatonin.

Method: Forty seasonal depression patients (DSM-IV, seasonal pattern specifier) were classified into four groups (10 per group); each group was subjected to different methods of phototherapy. The same thing was done for 40 nonseasonal depressed patients. The response was measured using Hamilton Rating Scale for Depression (HDRS). Serum melatonin was assessed using radioimmunoassay before and after treatment.

Results: Two hours sessions of exposure to bright light (3000 lux) daily showed significant reduction of HDRS ($P<0.05$) after for one week, this happened regardless of whether the session was given morning or evening. Neither brief session (15 minutes) of bright light nor a two hours session of dim light (360 lux) resulted in significant improvement of HDRS ($P>0.05$). The same results were found with the nonseasonal depressed group.

We found a significant drop of serum melatonin in the responders of seasonal depression ($P<0.05$), no significant drop ($P>0.05$) in non-responders seasonal depression patients or any of the nonseasonal depression group (responders or non-responders).

Conclusion: Daily sessions of bright light (two hours of 3000 lux) are a more effective regimen than briefer sessions or sessions of dim light. The drop of serum melatonin could differentiate seasonal from nonseasonal responders.

NR442 Wednesday, May 19, 12 noon-2:00 p.m.
Lamotrigine in the Treatment of Unipolar Depression

Peter D. Londborg, M.D., Seattle Clinical Research, 901 Boren Avenue, Suite 1800, Seattle WA 98104-3508; Neal R. Cutler, M.D., Lynn A. Cunningham, M.D., Francis X. Haines, M.D., Jorg J. Pahl, M.D., Scott A. West, M.D., Eileen Monaghan

Summary:

Objective: Double-blind data indicate that lamotrigine is effective in treating bipolar depression. This study (#613) was the first in a series of well controlled trials designed to extend these findings to unipolar depression.

Methods: A total of 437 outpatients were recruited from 15 sites in the U.S. with a DSM-IV diagnosis of a major depressive episode and HAM-D (17-item) total scores of at least 20. Subjects were randomized to one of three parallel groups: placebo, desmethylimipramine (DMI), and lamotrigine (LTG) for eight weeks. The two active treatments were titrated to a target dose of 200mg/day. Weekly study visits included assessment of efficacy (Hamilton Depression, MADRS, and CGI) and safety.

Results: Both LTG and DMI differentiated statistically from placebo on each measure of efficacy. The statistical significance for each active treatment group showed different patterns, with more positive findings for LTG on last observation carried forward analysis and more positive findings for the DMI group on observed case analysis. The adverse event profile was consistent with previous blinded studies in bipolar patients and was favorable for LTG.

Conclusions: This controlled study provides supportive evidence for the efficacy of lamotrigine in the treatment of unipolar depression.

Research funded by Glaxo Wellcome.

NR443 Wednesday, May 19, 12 noon-2:00 p.m.
The Postpartum Period As a Risk Factor for Switching from Bipolar II to Bipolar I Disorder

Deborah A. Sichel, M.D., Hestia Institute, 12 Mica Lane, Wellesley MA 01481; Cassandra P. Morabito, M.Ed.

Summary:

Background: Current data on bipolar II disorder suggest that the switch rate from bipolar II to bipolar I is low, from 5%-10%. There is little understanding about what constitutes risk periods for switching. In women who carry the bipolar II diagnosis, little is known about pregnancy and the postpartum period on the course and outcome of the disorder. The purpose of this study was to examine the switch rates during the postpartum period among women who met criteria for bipolar II disorder prior to pregnancy.

Method: The psychiatric records of 27 women who met criteria for bipolar II disorder prior to pregnancy and who sought treatment for mood deterioration during pregnancy or the postpartum period were reviewed. Variables reviewed included hospitalization, psychopharmacology record, psychosocial stressors, and timing of acute symptoms from delivery were evaluated. Chart records include: DSM-IV diagnoses, psychiatric history, family psychiatric history, and medical history.

Results: Eleven of 27 women were hospitalized for mania or mixed mood with psychotic features during the postpartum period. With careful history taking, it was evident that all met criteria for bipolar II disorder prior to pregnancy; however none of them had been diagnosed prior to this presentation. The mean time of onset between delivery and hospitalization for psychosis was less than two weeks.

Discussion: Although this is a small biased review the switch rate of 35% indicated that this time period is a period of high risk for women who meet symptom and duration criteria for bipolar II disorder prior to pregnancy. This sample strongly suggests that postpartum psychosis is not a new-onset illness, but a worsening of an unstable mood diathisis requiring assiduous monitoring and prophylaxis with mood-stabilizing medications.

NR444 Wednesday, May 19, 12 noon-2:00 p.m.
Long-Term Olanzapine Treatment of Mania

Todd M. Sanger, Ph.D., Lilly Research Lab, Eli Lilly and Company, Lilly Corporate Ctr, DC 0537, Indianapolis IN 46285; Mauricio F. Tohen, M.D., Thomas Jacobs, MAS, Kimberley S. Gannon, Ph.D., Michael Greaney, M.S., Gary D. Tollefson, M.D.

Summary:

Objective: To assess long-term effects of olanzapine, a 49-week open-label olanzapine extension phase was conducted after a three-week, double-blind, randomized study of olanzapine vs. placebo in bipolar I patients (N=139) with an acute manic or mixed episode.

Methods: Patients (N= 113, 18% mixed, 46% without psychotic features) entered the open-label extension and received 5-20 mg/day of olanzapine (average modal dose=13.8 mg/day) for an average of 201 days. The Y-MRS and the HAMD-21 were used to assess manic and depressive symptoms, respectively. Cognitive function was evaluated using the Positive and Negative Syndrome Scale (PANSS) Cognitive component, an independently validated measure of cognitive impairment (Bell et al. 1994). An additional PANSS factor, Hostility, was also used.

Results: Patients showed statistically significant improvement in manic and depressive symptoms. Mean change from baseline to endpoint was -18.01 on the Y-MRS (baseline=25.49, p<.001) and -5.77 on the HAMD-21 (baseline=12.17, p<.001). There was no difference in antimanic response based on the presence or absence of psychotic features at the index episode (p=.310). Cognitive functioning (PANSS Cognitive component) showed significant improvement with a mean change from baseline to endpoint of -6.33 (baseline=17.66, p<.001). Also, a significant improvement on the PANSS Hostility factor was found (mean change=-4.50, baseline=10.65, p<.00.1). Olanzapine was well tolerated with very few extrapyramidal symptoms and no clinically significant changes in labs, vitals, or ECG parameters.

Conclusions: Results suggest that olanzapine is safe and effective in the long-term treatment of bipolar I disorder and appears to exert a beneficial effect on cognitive functioning as measured by the PANSS Cognitive component.

NR445 Wednesday, May 19, 12 noon-2:00 p.m.
The Course of Depression in Elderly Collaborative Depression Study Subjects

Timothy I. Mueller, M.D., Department of Psychiatry, Brown University/Butler Hosp, 345 Blackstone Blvd., Providence RI 02906 0; Nina Leventhal, B.A., Andrew C. Leon, Ph.D., Robert Kohn, M.D., Martin B. Keller, M.D.

Summary:

Introduction: As the number of elderly in the general population increases, the course of depression in this group becomes increasingly salient. Reports to date have been marked by a lack of consistency in methods and results.

Methods: We relied on the strengths of the NIMH Collaborative Depression Study (CDS), (systematic assessment, 15 years of follow-up, frequent short-interval prospective interviews) to examine the course of major depressive disorder (MDD) in the elderly. We report on the first cycle of depression for 32 subjects 65 years and older and 399 younger subjects. Survival analysis examined the time to recovery of the index episode and time to first recurrence in those who recover. We also present clinical and demographic variables for each group.

Results: The median time to recovery is similar: 22.75 weeks in the elderly vs. 24.75 weeks in the younger group (logrank=0.07,df=1,p=0.79). Median time to first recurrence is clinically and statistically different, with the elderly developing a recurrence sooner than the younger group: 78.80 weeks vs. 136.53 weeks (logrank= 5.72, df=1, p=0.017).

Conclusion: CDS subjects 65 and older at intake had similar times to recovery as a younger comparison group, but experienced recurrence at a significantly accelerated rate. Clinical and demographic variables suggest the elderly experienced a somewhat more severe illness.

NR446 Wednesday, May 19, 12 noon-2:00 p.m.
Comorbidity, Insight and Psychopathology in Pure and Mixed Mania with Psychotic Features

Stefano Pini, M.D., Department of Psychiatry, University of Pisa, Via Roma 67, Pisa 56100, Italy; Antonio Tundo, M.D., Liliana Dell'Osso, M.D., Nannina Sarno, M.D., Giovanni B. Cassano, M.D.

Summary:

Objectives: This study investigated rates of Axis I comorbidity, level of insight, and psychopathology of patients with pure or mixed mania.

Method: Of a total cohort of 125 consecutively hospitalized patients with a DSM-III-R diagnosis of bipolar I disorder with psychotic features, 62 subjects had a current pure manic episode and 28 subjects had a mixed manic episode.

Results: Compared with manic patients, those with mixed mania showed a higher rate of obsessive-compulsive disorder comorbidity (6.5% vs. 21.4%, χ^2 = 4.381, p<.05) and a better awareness of social consequences of current episode of illness as measured by SUMD (2.6 vs. 3.6, t=2.787, p<.01). Mixed mania was associated with significantly higher rate of unemployment (82.1% vs. 58.1%, χ^2 = 4.953, p<.05) suicide attempts (25.0% vs. 8.1%, c = 4.788, p <05), and anergia (1.8 vs. 1.5, t=-2.188, p<.05) as assessed by BPRS, and psychoticism (1.1 vs. 0.7 , t=-2.229, p<0.5) as assessed by SCL-90. Pure mania was associated with higher rate of "thought disturbances" (3.4 vs. 2.7, t=3.187, p<01) and "activation" (2.7 vs. 2.1, t=2.941, p<01) as assessed by BPRS.

Conclusions: Our most striking findings were an association of mixed mania with obsessive-compulsive disorder comorbidity and with a higher level of insight. Overall, these results support previous research indicating that mixed state may be simply due to the fact that mania and depression are affective states that may overlap in various degrees.

NR447 Wednesday, May 19, 12 noon-2:00 p.m.
Reboxetine Versus Fluoxetine: Benefits in Social Function

Juan Massana, M.D., Department of Psychiatry, Hospital Clinic, Villaroel 170, Barcelona 08036, Spain

Summary:

Objectives: The unique selective noradrenaline reuptake inhibitor (selective NRI) reboxetine is effective and well tolerated in a wide patient range. Here, the efficacy and tolerability of reboxetine and fluoxetine are compared.

Methods: Two double-blind, parallel-group, randomized, multicenter studies were performed in 549 patients with major depression, comparing reboxetine 8-10 mg/day (205 patients) with fluoxetine 20-40 mg/day (216 patients) for eight weeks, or the same doses with placebo (128 patients: one study).

Results: Reboxetine was as effective as fluoxetine in both studies: reductions in mean HAM-D total scores were 19.2 (reboxetine) and16.8 (fluoxetine) in the comparator study, and 13.4 (reboxetine), 13.3 (fluoxetine), and 8.7 (placebo: p<0.024 vs. active treatments) in the placebo-controlled study. Cumulative analysis of the two studies showed reboxetine to be more effective in a subset of severely depressed patients (weighted mean reboxetine-fluoxetine difference at endpoint = 2.6 points; 95% CI: 0.5-4.6). Reboxetine was as well tolerated as fluoxetine in both studies, with similar overall adverse events rates (67% reboxetine: 65% fluoxetine).

Conclusions: Reboxetine is as effective and well tolerated as fluoxetine in the treatment of major depression in the general population, and more effective than fluoxetine in severe depression.

Funded by Pharmacia & Upjohn.

NR448 Wednesday, May 19, 12 noon-2:00 p.m.
Efficacy of Reboxetine in Placebo-Controlled Trials

Juan Massana, M.D., Department of Psychiatry, Hospital Clinic, Villaroel 170, Barcelona 08036, Spain

Summary:

Objectives: Tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs) are frequently used in the treatment of depression, but TCAs can be associated with poor tolerability in some patients and SSRIs with lack of efficacy in others. The efficacy of reboxetine, the first selective noradrenaline reuptake inhibitor (selective NRI) used in the treatment of depression, is compared with placebo.

Methods: Pooled data were analyzed from four short-term (4-8 weeks; n=1034) and one long-term (12 months; n=283) studies comparing reboxetine with placebo, imipramine, desipramine, or fluoxetine. Efficacy was principally assessed using the Hamilton Depression Rating Scale (HAM-D).

Results: Reboxetine was more effective than placebo in three of four short-term studies and more effective than placebo in preventing relapse and recurrence in the long term. The response rate (≥50% decrease in HAM-D total score) was 56%-74% for reboxetine-treated and 20%-52% for placebo-treated patients. In the long-term trial, 78% of patients receiving reboxetine were in remission (HAM-D total score ≤10) at last assessment, compared with 45% of patients in the placebo group (p<0.001). Relapse rates were 22% and 56% in the reboxetine and placebo groups, respectively (p<0.001).

Conclusions: Reboxetine is more effective than placebo in both short- and long-term treatment of depression.

Funded by Pharmacia & Upjohn.

NR449 Wednesday, May 19, 12 noon-2:00 p.m.
Differential Creativity Assessments in Patients with Bipolar Disorder

Claudia M. Santosa, M.A., Department of Psychiatry, Stanford University, 401 Quarry Road, Rm 2116B, Stanford CA 94305-5723; Nadia Sachs, M-Eng., Connie M. Strong, M.S., Mirene C. Winsberg, M.D., Terence A. Ketter, M.D.

Summary:

Objective: An emerging literature suggests relationships between bipolar disorders and creativity. In order to explore this phenomenon in a systematic fashion, we assessed bipolar disorder patients and healthy controls with a battery of three structured creativity measures.

Method: Eight bipolar disorder patients (6F/2M, mean age 34.6 years, 4 BPI, 4 BPII) and 23 healthy controls (15F/8M, mean age 33.7) were administered the Barron-Welsh Art Scale (BWAS), the Creative Personality Scale of the Adjective Check List (CPS-ACL), and the Torrance Test of Creative Thinking, Figural (TTCT-F) and -Verbal (TTCT-V) versions.

Results: Compared with healthy controls, bipolar disorder patients had a higher mean BWAS score (33.9 ± 11.4 versus 19.9 ± 9.6, p< 0.003), but not higher mean CPS-ACL, TTCT-F, or TTCT-V scores. Among these rating instruments, only the TTCT-F and TTCT-V had significant correlations with one another (r= 0.474, p= 0.01).

Conclusions: The mean BWAS score of our bipolar disorder patients is similar to that previously observed in a group of writers (32.9 ± 11.1) and is significantly higher than that of our healthy controls, whose mean BWAS score is similar to that expected in the general population (18.0). In prior studies, high

BWAS scores have been associated with Cluster B personality disorders (King 1993) and high Psychoticism scores on the Eysenck Personality Questionnaire (Eysenck 1993), the latter two, of which have been associated with bipolar disorders. Taken together, these data suggest that enhanced creativity in bipolar disorder patients may be detected with the Barron Welsh Art Scale.

Supported by the Stanley Foundation.

NR450 Wednesday, May 19, 12 noon-2:00 p.m. MRI Changes and Depression in the Cardiovascular Health Study

David C. Steffens, M.D., Department of Psychiatry, Duke University, Trent Drive-Duke S/Bx 3903, Durham NC 27710; Michael J. Helms, B.S., K. Ranga R. Krishnan, M.D., Gregory R. Burke

Summary:

Objective: To investigate the relationship between depressive symptoms and white and gray matter lesions in subjects participating in the Cardiovascular Health Study.

Method: In a sample of 3,644 men and women who underwent a standardized interview, physical examination, and magnetic resonance imaging (MRI) scan, we examined the association between number of white and gray matter lesions and white matter grade (a measure of severity) and reported depressive symptoms using a modified version of the Centers for Epidemiologic Studies Depression (CES-D) scale. In logistic regression models, we controlled for a variety of demographic and medical variables as well as functional status and MMSE score.

Results: Number of small (less than 3mm) basal ganglia lesions was significantly associated with reported depressive symptoms, as was white matter lesion severity. In subsequent logistic regression models, number of basal ganglia lesions remained a significant predictor after controlling for non-MRI variables and severity of white matter lesions (p=0.0091, odds ratio=1.355 with confidence interval=1.078-1.702).

Conclusions: Our findings extend previous reports which linked cerebrovascular changes to depressive symptoms in clinical populations to a large community-based population. This report provides further evidence of the importance of basal ganglia lesions in geriatric depression.

NR451 Wednesday, May 19, 12 noon-2:00 p.m. Safety and Efficacy of Oral Loading Divalproex Sodium in Acutely Manic Bipolar Patients

Paul E. Keck, Jr., M.D., Biological Psychiatry, University of Cincinnati, 231 Bethesda Ave/PO Box 670559, Cincinnati OH 45267; Jeanne Martin, James H. Thomas, M.D., Michael H. Allen, M.D., Robert M.A. Hirschfeld, M.D., K.W. Sommerville, M.D.

Summary:

Rationale: To assess the safety, tolerability and efficacy of oral loading of divalproex sodium (DVPX) in acute mania.

Methods: Patients with bipolar disorder and a minimum score of 14 on the MRS were randomly assigned to each of the following treatments: (1) DVPX 30 mg/kg/day on Days 1 and 2, then 20 mg/kg/day thereafter given in divided doses (N=20); (2) DVPX 750 mg in divided doses followed by standard titration (N=20) or (3) lithium carbonate at 300 mg TID (N=19) followed by standard titration. In this 10 day trial, blinded raters assessed the MRS and GAS on days 2 through 6, 8 and 10.

Results: No patient discontinued due to adverse events. The proportion of adverse events reported was similar for all treatment groups. Similar improvement was seen for the mean change from baseline in MRS and GAS scores for each group.

Conclusion: This is the first double-blind, randomized, mulitcenter, study comparing oral loading DVPX with standard titration of DVPX or lithium for acute manic episodes. Initiation of DVPX loading (see *Methods*) was well tolerated and effective. Usual effective concentrations were achieved by day 3 following DVPX loading dose but not by other titration strategies.

Study supported by Abbott Laboratories.

NR452 Wednesday, May 19, 12 noon-2:00 p.m. Absence of Attentional Deficits in Stabilized Bipolar Youth: The Role of Symptom Severity and Phase Specificity

Heather A. Robertson, M.A., Department of Psychiatry, Dalhousie University, Rm 4083, 3909 Jubilee Road, Lane Bldg., Halifax NS B3H 2E2, Canada; Neera Datta, M.A., Diane C. Bird, B.Sc., Stanley P. Kutcher, M.D.

Summary:

Objective: Research on comorbidity in bipolar disorder have suggested an association with attentional deficits. However, the role of current symptomatology in the assessment of attention in this group has not been elucidated. As part of a comprehensive follow-up study of mood disordered youth, indices of attention study were obtained from a sample of stabilized bipolar and unipolar youth, and normal controls.

Method: Sample: 119 participants: 44 bipolar (B) (17M, 27F) and 30 unipolar (U) youth (9M, 21F), 45 controls (C) (19M, 26F). Mean ages: 19.5, 18.5 and 18.2 years, respectively. Instruments: Connor's Continuous Performance Test (CPT), Wechsler Intelligence Test (WISC III).

Results: No significant group/sex differences were observed on: Freedom from Distractibility subscale (WISC III) or on various CPT indices of attention (variability of attention, speed decrement over time, commission/omission errors, activation/arousal). Performance for the majority was well within age-appropriate norms. A small proportion of the total sample fit a typical ADHD profile, and most of these were controls.

Conclusions: These findings suggest attentional deficits reported in bipolar disorder may - in part - be a function of the time at which the assessment is made (euthymic vs intra-episode functioning).

Funded by: Canadian Psychiatric Reseach Foundation and Queen Elizabeth 11 Health Science Center, Halifax, Nova Scotia.

NR453 Wednesday, May 19, 12 noon-2:00 p.m. Changes in Weight During a One-Year Trial with Fluoxetine

David Michelson, M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center/DC 2032, Indianapolis IN 46285; Jay D. Amsterdam, M.D., Yongman Kim, Ph.D., Karen Sundell, B.S.

Summary:

Objective: Fluoxetine has been associated with weight loss during acute treatment, but no controlled studies of weight change during long-term treatment have been reported.

Methods: Patients whose depressive symptoms remitted after 12 weeks of fluoxetine 20 mg daily were randomized to receive up to 38 weeks of continuation treatment with fluoxetine or placebo. We assessed weight change during acute treatment and after 14, 26, and 38 weeks of continuation treatment. We assessed relationships between weight change and body mass index and between weight change and appetite changes.

Results: During the initial 4 weeks of therapy, a mean weight decrease of 0.4 kg was observed among all randomized patients. Among patients who completed 50 total weeks of therapy, mean weight increase during continuation treatment was similar for both placebo- and fluoxetine-treated groups. Increased weight was not related to initial BMI, but to decreased appetite at study entry and to improvement in appetite following recovery. No patients discontinued due to weight gain.

Conclusion: Acute therapy with fluoxetine is associated with modest weight loss. After remission of depressive symptoms, weight gain in patients taking fluoxetine for longer periods is not different from that in patients taking placebo and is most likely related to recovery from depression.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR454 Wednesday, May 19, 12 noon-2:00 p.m.
Relationship Between Mood Disturbance in Schizophrenia and Quality of Life

Scott W. Andersen, M.S., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Gary D. Tollefson, M.D.

Summary:

Objective: The main objective in the treatment of schizophrenia should be to optimize individual patient functioning and quality-of-life (QOL). To enhance an individual's chance to reintegrate, improvement across the widest spectrum of schizophrenic symptomatology--including non traditional disease associated symptoms other than delusions and hallucinations--should be sought. One example is concurrent mood disturbance. Such a factor would be expected to adversely impact the patient's perception of QOL. QOL in schizophrenia may be adversely affected by a variety of factors including duration of illness, cumulative hospitalization days, tardive dyskinesia, and magnitude of negative symptoms. However, less is known about the possible relationship of concurrent mood symptoms. The hypothesis of these analyses was that the QOL for people with schizophrenia would be inversely related to the severity of concurrent mood disruption.

Methods: Post-hoc analysis was conducted of an international, multi-center, double-blind, 28-week study of 339 patients who met DSM-IV criteria for schizophrenia, schizophreniform, or schizoaffective disorder. QOL data were collected at baseline, 8, 16, 24, and 28 weeks or at early discontinuation; PANSS data were collected at each visit (weekly to week 8 and monthly thereafter). Correlations were calculated between changes in QOL (QLS Total and subscales) and PANSS Mood score. Regression models were used to determine the proportion of variability in the QLS total and subscores accounted for by changes in PANSS Positive, PANSS Negative, and PANSS Mood scores. Finally, a statistical path analysis was performed to determine the mechanisms used by the PANSS Mood scores to affect the QLS total and subscores. All analyses used an LOCF algorithm.

Results: The correlations of PANSS Mood on the QLS total and subscores were statistically significant with the strongest correlation against the Interpersonal Relations (QLS_IPR) subscore. The path analysis results indicate that the PANSS Mood most significant path in affecting QLS total and QLS_IPR is direct as opposed to indirect through affecting PANSS positive and PANSS Negative scores which in turn affect QLS total and QLS_IPR.

Conclusions: Changes in QOL of schizophrenic patients is inversely related to changes in the concurrent mood disruption. Early therapeutic interventions directed at a broader constellation of schizophrenic symptomatology, including mood, may be helpful in improving a patient's QOL. With the introduction of novel antipsychotic agents earlier in the course of illness, their possible relative advantages in restoring individual QOL merit further investigation.

NR455 Wednesday, May 19, 12 noon-2:00 p.m.
The Study of Olanzapine Plus Fluoxetine in Treatment-Resistant MDD Without Psychotic Features

Gary D. Tollefson, M.D., Lilly Resch Laboratories, Eli Lilly and Company, Lilly Corp Ctr, Drop Code 0538, Indianapolis IN 46285; Richard C. Shelton., M.D., Mauricio, F. Tohen, M.D., Stephen M. Stahl, M.D., Ibomas Jacobs, MAS, Kimberley S. Gannon, Ph.D.

Summary:

Objective: Although many therapeutic agents demonstrate some efficacy in the treatment of major depressive disorder (MDD), approximately 30% of patients who receive therapy fail to demonstrate adequate clinical response. An 8-week, double-blind, 2-site trial was conducted to assess the safety and efficacy of olanzapine combined with fluoxetine for the treatment of 28 patients diagnosed with treatment-resistant major depression.

Method: Patients were randomized to one of three treatment groups: fluoxetine (20-60 mg/day) and placebo, olanzapine (5-20 mg/day) and placebo, or fluoxetine plus olanzapine (20-60 mg/day and 5-20 mg/day, respectively). The efficacy of treatment was monitored using the HAMD-21, Montgomery-Asberg Depression Rating Scale (MADRS) and the Clinical Global Impression (CGI) - Severity of Depression rating scale.

Results: The olanzapine plus fluoxetine group experienced a numerically greater improvement on the HAMD-21 total score than either the olanzapine or fluoxetine monotherapy group (means = -11.70, -5.88, and -3.80, respectively). On the MADRS total score, the olanzapine plus fluoxetine group had a statistically significantly greater mean improvement from baseline than either the olanzapine or fluoxetine group (p=.035 and .012, respectively; means = -13.60, -2.75, and -1.20, respectively). Similarly, on the CGI, the olanzapine plus fluoxetine group had a statistically significantly greater mean improvement from baseline than either the olanzapine or fluoxetine group (p=.001 and .005, respectively; means = -2.00, 0.00, and -0.40, respectively). There were no statistically significant differences between any of the treatment groups on any measures of parkinsonism or akathisia. Examination of treatment-emergent adverse events, laboratory analytes, and vital signs revealed no evidence of any significant adverse interaction between olanzapine and fluoxetine when given in combination.

Conclusion: Based on results from the current study, olanzapine plus fluoxetine demonstrated superior efficacy than either olanzapine or fluoxetine monotherapy in patients with treatment-resistant MDD.

NR456 Wednesday, May 19 12 noon-2:00 p.m.

Quetiapine Fumarate in Neuroleptic-Dependent Mood Disorders

Martha Sajatovic, M.D., Department of Psychiatry, Cleveland Veterans Affairs, 345 Timberidge Trail, Gates Mills OH 44040; Debra W. Brescan, M.D., Dalia Perez, M.D., Sue Digiovani, M.D., Helen G. Hattab, M.D.

Summary:

Objective: Quetiapine is an effective novel antipsychotic with mixed serotonergic and dopaminergic activity. Clinically, it is generally readily tolerated, with a low extra-pyramidal adverse effect profile. This is a prospective, open label trial of quetiapine therapy in patients with neuroleptic dependent mood disorders.

Methods: Individuals with bipolar or schizoaffective disorder who, based upon clinical history, required both mood stabilizing and neuroleptic medication for at least six months, were given add-on quetiapine therapy to existing medication regimen. Other antipsychotic medication was gradually discontinued. Psychopathology was evaluated with the Brief Psychiatric Rating Scale (BPRS), the Young Mania Rating Scale (YMRS), and the Hamilton Depression Scale (HAM-D). Abnormal movements were assessed with the Simpson Angus Neurological Rating Scale (SA).

Results: Sixteen individuals (9 with bipolar disorder and 7 with schizoaffective disorder) received quetiapine therapy for a mean of 10. 8 weeks at a mean maintenance dosage of 155 mg/day. Mean age of the group was 49.9 years. Overall, patients did very well on quetiapine therapy with significant improvement in BPRS score (p=.0001), YMRS score (p=.008), and HAM-D score (p=.0003) compared to previous antipsychotic medication therapy. SA score decreased from a baseline of 5.5 to an endpoint score of 2.5 but failed to reach statistical significance (p= .075).

Conclusion: Quetiapine is an effective antipsychotic medication in neuroleptic dependent patients with serious mood disorders. These preliminary findings should be explored in larger, controlled trials.

This study was supported by a grant from Zeneca Pharmaceuticals

NR457 Wednesday, May 19, 12 noon-2:00 pm.

A Comparison of Bupropion SR, Sertraline and Placebo in Depressed Outpatients

Harry A. Croft, M.D., Croft & Associates PA, 8038 Wurzbach Road, Suite 570, San Antonio TX 78229-3815; John A. Ascher, M.D., Sharyn Batey, Pharm.D., Trisha Houser, B.A., Refe Donahue, Ph.D.

Summary:

Objective: This study compared the safety and efficacy, including sexual functioning, of bupropion SR, sertraline, and placebo in depressed outpatients.

Methods: Outpatients with normal sexual functioning experiencing moderate to severe recurrent major depression were randomized to receive either bupropion SR (150 - 400 mg/day), sertraline (50-200 mg/day), or placebo for 8 weeks. Sexual functioning was assessed by investigators using structured interviews. Efficacy and safety were assessed at each clinic visit.

Results: A total of 360 subjects (120 bupropion SR; 119 sertraline; and 121 placebo) were randomized to treatment. Bupropion SR was associated with a lower incidence of orgasm dysfunction (p<0.001) than sertraline from Days 7-56. More bupropion SR-treated subjects than sertraline-treated subjects reported satisfaction with sexual functioning throughout the study. Both bupropion SR and sertraline were statistically superior to placebo (p<0.05) at multiple time points on the HAMD, CGI-S, and CGI-I. Vital signs assessments were comparable between the three treatment groups. Both bupropion SR and sertraline were well-tolerated, with a low rate of discontinuation for adverse events.

Conclusion: Sertraline treatment was associated with more sexual dysfunction and less satisfaction with sexual functioning than bupropion SR. Both bupropion SR and sertraline were efficacious and well-tolerated.

The conduct of this study was funded by a grant from Glaxo Wellcome Inc.

NR458 Wednesday, May 19, 12 noon-2:00 p.m.

National Depressive and Manic-Depressive Association's Groups Increase Compliance Among Patients

Lisa C. Goodale, L.S.W., National DMDA, 730 N Franklin Street, Ste 501, Chicago IL 60610; Lydia Lewis

Summary:

Objective: The National Depressive and Manic-Depressive Association conducted a survey of people attending DMDA support groups across the country to obtain information about their demographics, diagnoses, and medical regimens.

Method: Respondents used 3-point scales to rate the importance of different reasons for attending DMDA groups and barriers to treatment, and the helpfulness of DMDA groups. The survey was completed in three waves to measure changes in treatment compliance over time.

Results: The goals of the survey were to determine whether (1) DMDA groups help people follow treatment regimens, (2) the longer people have attended a DMDA group the less likely they are to have stopped medication against medical advice, and (3) they perceive fewer barriers to following their treatment after attending these groups. Results were consistent with the belief that DMDA groups provide both social support and help following treatment regimens, as the vast majority of respondents described their group as providing both.

Conclusion: The high rate of compliance in those surveyed, and the fact that those who completed a second survey showed improved compliance, is consistent with the idea that DMDA groups help people follow medical regimens.

NR459 Wednesday, May 19, 12 noon-2:00 p.m.

Efficacy and Safety of Risperidone in Bipolar Disorders

Eduard Vieta, M.D., Department of Psychiatry, Hospital Clinic, Villarroel 170, Barcelona 08036, Spain; Marisa Herraiz, M.D., Antonio Fernandez, M.D.

Summary:

Objective: An open study was performed to determine if the use of risperidone in addition to stabilizers could be effective and safe in the treatment of acute bipolar and schizoaffective patients.

Methods: Three hundred five bipolar and schizoaffective patients were included in an open label surveillance study to evaluate the safety and efficacy of risperidone as add-on therapy to mood stabilizers in the treatment of psychotic and affective symptoms associated to bipolar and schizoaffective disorders

during a 6-month period. Inclusion criteria were: Current DSM-IV manic, hypomanic or mixed episode, need of antipsychotic treatment according to the investigators' experience, and YMRS > 7. Assessments included the PANSS, YMRS, HAM-D, CGI, and UKU. Results from the 6-week cut-off are presented.

Results: The average dose at week 6 was 4.3 mg/day. A total of 22 patients dropped out due to inefficacy, side effects, or lost for follow-up. Risperidone was associated to a highly significant reduction in the mean scores of the PANSS, YMRS, HAM-D and CGI scales after 6 weeks of treatment. No statistical differences were observed between baseline and week 6 in the severity of EPS according to the UKU subscale.

Conclusions: Risperidone is a safe, effective therapy in combination with mood-stabilizers to treat patients with manic, hypomanic or mixed episodes of bipolar and schizoaffective disorder.

NR460 Wednesday, May 19, 12 noon-2:00 p.m.
Personality Disorders in Bipolar II Patients

Francesc Colom, Ph.D., Department of Psychiatry, Hospital Clinic, Billarroel 170, Barcelona 08036, Spain; Eduard Vieta, M.D., Anabel Martinez-Aran, Ph.D., Maria Reinares, Ph.D., Antonio Benabarre, M.D., Cristobal Gasto, M.D.

Summary:

Objective: The validity of the diagnosis of personality disorders and its influence in the course and outcome of bipolar disorders has been a controversial subject. This study examined the comorbid personality disorders of a sample of bipolar II patients, comparing the course of bipolar II patients with personality disorder with patients with bipolar II disorder alone.

Method: Forty RDC bipolar II patients were assessed by means of the SCID-II for personality disorders. Patients fulfilling DSM-III-R criteria for any personality disorder were compared with patients without personality disorder.

Results: One third of the sample (32.5%) had lifetime comorbidity with personality disorders. Borderline personality disorder was the most prevalent personality disorder in bipolar II patients (12.5%). Bipolar II patients with personality disorders had significantly lower age of onset (24 vs. 36 years, p=0.03) and higher rates of suicide ideation (92 vs. 29%, p=0.004) and suicide attempts (54 vs. 11%, p=0.006).

Conclusions: The presence of a personality disorder as a comorbid diagnosis among a sample of bipolar II patients has not a definite influence in the clinical course of the disorder in terms of number of episodes or hospitalization, but may be associated to higher risk of suicide.

Supported by grants FIS 98/0700 and Marato TV3 97/1028.

NR461 Wednesday, May 19, 12 noon-2:00 p.m.
Sertraline in Depressed Patients Resistant and/or Intolerant to a Previous Treatment

Julien-Daniel Guelfi, M.D., Department of Psychiatry, Hopital Paul Brousse, 12 Ave Paul Vaillant Couturier, Villejoif 34800, France; Sylvie Troy

Summary:

Objectives: To evaluate the benefit to treat with sertraline versus placebo, patients and/or intolerant (R/I) to a previous treatment by tricyclic (TCA) or a Selective Serotonin Reuptake Inhibitor (SSRI).

Methods: It was a three months, randomized double blind parallel study, 148 R/I patients to tricyclics (n=71) or SSRI (n=77), received according to the randomization either flexible doses of sertaline or a placebo. During visits at 7, 15, 30, 45, 60 and 90 days, the main evaluations were the Hamilton Depression Rating scale HAM-D, the Montgomery and Asberg Depression Rating Scale MADRS, the Hamilton Anxiety Raring Scale HAM-A and the Clinical Global Impression CGI. At the inclusion, patients presented a Major Depressive Episode (according to the DSM IV and an HAM-D score of at least I8.

Results: On the 148 patients; 91.9% were resistant; 8.1% were intolerant and 5.4% were both. The mean HAM-D score (17 items) at the inclusion was 25.15. Sertraline was statistically more effective than placebo on the overall population on the following criteria, respectively in the intent to treat (ITT) and per protocol analysis (PP): HAM-D responders rate (RR) (decrease of 50% and final scare of 8 or CGI of 1 or 2) 43.4% versus (vs) 62.5% p=0.02 and 43.3% vs 63% p=0.02 and, the MADRS (RR) (decrease of 50% and CGI 1 or 2) 36.8% vs 52.8% p=0,05 and 35.8% vs 52.3% p=0.06. In PP analysis sertraline was also more effective on total score HAM-D (-10.9 vs -14) p=0.02; MADRS (11.9 vs -16.5) p=0.01; and on CGI. Looking at subgroups, patients resistant to TCA were not statistically improved by sertraline. Patients resistant to SSRI were statistically improved on sertaline on the following criteria, respectively in ITT and PP analysis: HAM-D responders rate (RR) 36.6% vs 66.7% p=0.008 and 37.8% vs 69.7% p=0.008; HAM-D total score was improved -9.9 vs -14.3 p=0.0l and -9.8 vs- 15 p=0.004: MADRS total score -11.8 vs -17.5 p=0.01 and -11.4 vs -18.2 p=0,003 and also CGI-S; CGI-I and HAM-A. The treatment under study was well tolerated.

Conclusion: This study shows a benefit to treat by sertraline SSRI resistant depressed patients.

NR462 Wednesday, May 19, 12 noon-2:00 p.m.
Pharmacological Hypomania/Mania in Unipolar Affective Disorders

Carlos Lopez Conesa, M.D., Department of Psychiatry, Mollet Hospital, Cristobal Colon, Barcelona 08100, Spain; Teresa Rodellar, M.D., Anna Torras, M.D., Diego J. Palao, M.D., Maite Bel, Ph.D., Vicente Fabregat, M.D., Myriam Cavero, M.D.

Summary:

Objective: Study the phenomenon of pharmacological hypomania/mania in unipolar affective patients.

Methods: Retrospective study of the clinical records of 505 outpatients diagnosed with unipolar affective disorders according to DSM-IV diagnostic criteria (Dysthymia, N:266 and Major Depression, N:239). The study period was from the 1st January 1992 to the 30th November 1998. The elapsing of more than a month between the taking of the inductor and the appearance of the clinical phenomenon would invalidate any relation between hypomania/mania and the taking of the drug.

Results: Initial data show that in 100% of cases the induced phenomenon is hypomaniacal. There is no induced mania. In all cases the inductor drugs are antidepressants and the reduction or discontiunation of the antidepressant alone normalises the pathological result in all cases. Induced mypomania affected 2.9% of patients with major depression and 1.5% of dysthymic patients. In 36% of the patients the result recurs on more than one occasion. The drugs employed belong to practically all the antidepressant families. In 10% of cases of unipolar affective disorder there is at least one spontaneous mypomaniacal episode following the last induced hypomanical episode.

Conclusions: Preliminary data indicated that the phenomenon of induced hypomania using antidepressants in unipolar affective

patients does not constitute a major clinical problem as it apparently does in bipolar patients.

NR463 Wednesday, May 19, 12 noon-2:00 p.m. A Double-Blind Study with Paroxetine and Imipramine

Alfonso Ontiveros, M.D., Department of Psychiatry, University Hospital, APDO. Postal 3-4101, Monterrey NL 64461, Mexico; Javier Lugoleos, M.D.

Summary:

Objective: Efficacy and tolerance of imipramine and a fixed dosage of paroxetine was studied in severely ill depressive outpatients.

Methods: Seventy-five outpatients with DSM-IV major depression, ages 18-65 years were included. Patients were excluded if they: had other psychiatric diagnoses, relevant medical conditions or current use of other psychotropic drugs. After a single blind week of placebo, patients with 22 or more points in HamD were randomly assigned to paroxetine 20 mg/day or imipramine 150-300 mg/day treatment for 6 weeks. Evolution was assessed weekly with: HamD, HamA, Raskin-Covi and CGI severity and improvement scales.

Results: Patients included were 30 on paroxetine and 31 on imipramine. Paroxetine and imipramine both lowered markedly HamD-17 items scores from baseline (-18±10.1 and -17.2±8.2 respectively, NS LOCF analysis). Also, no differences were observed in others anxiety and depression scales used. A 50% or more decrease in HamD was observed in 23 patients on paroxetine (77%) and 25 on imipramine (81%) (NS). Imipramine caused more adverse events than paroxetine (343 vs. 235, $p<0.01$). The average imipramine dose of 187±46.5 mg/day was significantly related to dry mouth, constipation, disnea and tachycardia.

Conclusion: Paroxetine 20 mg/day was equally effective as imipramine in severely ill major depression outpatients.

NR464 Wednesday, May 19, 12 noon-2:00 p.m. Reboxetine, the First Selective Noradrenaline Reuptake Inhibitor, Is More Effective at Improving Social Functioning than Fluoxetine

Hansjurgen Moller, M.D., Department of Psychiatry, Ludwigmaximilians, Nussbaumstrasse 7, D-80336 Munich, Germany

Summary:

Objectives: Impaired social functioning can contribute to poor prognosis in depression. This report compares the ability of reboxetine to improve social functioning with that of fluoxetine.

Methods: Two double-blind, parallel-group, randomized, multicentre studies were conducted in 549 patients with major depression, comparing reboxetine 8-10 mg/day with fluoxetine 20-40 mg/day or placebo (one study) for 8 weeks. In total, 513 patients completed social functioning self-assessment questionnaires, using the Social Adaptation Self-evaluation Scale (SASS). The normal SASS range is 35-52.

Results: Reboxetine treatment led to more patients achieving a normal SASS total score at last assessment than did fluoxetine treatment (49% vs 44% >35 points [placebo-controlled trial], and 60% vs 55% >35 points). Improvements in SASS total scores from baseline to last assessment in the placebo-controlled study were 10.2 (reboxetine), 7.4 (fluoxetine), 3.3 (placebo) ($p<0.05$ for reboxetine vs placebo and fluoxetine). Among patients in remission at last assessment, improvement in SASS total score was greatest with reboxetine (16.2), compared with fluoxetine (9.7) and placebo (5.1), ($p<0.05$). Reboxetine led to improved individual SASS item scores for active social behavior and self-perception. The second fluoxetine-controlled study confirmed these results.

Conclusions: Reboxetine is more effective than fluoxetine in improving social functioning in depressed patients, and produces a better quality of remission.

NR465 Wednesday, May 19, 12 noon-2:00 p.m. Postpartum Depression: Distinct Entity or Coincidence?

Amy Hostetter, B.A., Department of Psychiatry, Emory University, 1639 Pierce Drive, Suite 4003, Atlanta GA 30322; Claudia L. Baugh, B.A., Zachary N. Stowe, M.D.

Summary:

Historically, the Puerperium has been identified as a high risk period for the onset of depressive symptoms. The DSM-IV modifier for postpartum depression (PPD), requires symptom onset within 4 weeks after delivery. The data supporting PPD as a unique diagnostic entity is sparse. Time of onset, and specific criteria have been the center of the diagnostic debate. This study evaluated the DSM-IV modifier in a well controlled sample of women referred to the Emory Pregnancy and Postpartum Mood Disorders Program for "postpartum depression." 181 women were included in the study (met DSM-IIIR criteria for major depression non-psychotic, no medication at presentation, no prior treatment for current episode of depression). Of these women, 31 (17%) reported symptom onset during pregnancy (30.4 ± 12.8 weeks gestation) and 58 (32%) reported onset after 4 weeks postpartum (11.0 ± 6.8 weeks postpartum). Consistent with postpartum onset as defined by DSM-IV, 51% (N=95) had symptom onset within 4 weeks (2.0 ± 1.1 weeks postpartum). At initial presentation, a Beck Depression Inventory, Edinburgh Postnatal Depression Scale, and a Hamilton Rating Scale for Depression were completed. No significant differences were found among rating scale scores or demographic variables. However, this was not a community sample and may not be representative of the general postpartum population. This study indicates that DSM-IV criteria may not accurately reflect clinical presentations, and suggests that the impact of childbirth on mood extends from pregnancy to beyond 4 weeks postpartum. These findings may account for previous nosological and biological discrepancies among postpartum research.

NR466 Wednesday, May 19, 12 noon-2:00 p.m. Rapid Onset of Therapeutic Action in Major Depression: A Comparative Trial of Mirtazapine and Paroxetine

Otto Benkert, M.D., Department of Psychiatry, Untere Zahlbacher Str 8, Mainz 55131, Germany; Armin Szegedi, M.D., Ralph Kohnen, Ph.D., Albert-Jan Schutte, M.D.

Summary:

Aim: To compare antidepressant and anxiolytic efficacy as well as tolerability of mirtazapine and paroxetine in a randomized, double-blind, multicentre, 6-weeks' study.

Methods: Outpatients with a Major Depressive Episode-DSM-IV and a baseline score of ≥18 on the 17- HAMD were random-

ized to 6 weeks' treatment with either mirtazapine (n=138,15-45 mg/day) or paroxetine (n=136, 20-40 mg/day). Efficacy was assessed by the 17-HAMD, HAMA, CGI and BDI scales, on ITT group using the OC and LOCF methods; and tolerability by the UKU scale and reporting of adverse events.

Results: Mean doses were mirtazapine, 32.7 mg/day and paroxetine, 22.9 mg/day; 24 patients in either treatment group dropped out from the study. Both drugs were equally effective in reducing overall symptoms of depression. At week 1 improvement in 17- HAMD scores was significantly larger under mirtazapine (d= -6.0±5.2) compared to paroxetine (d= -3.6±5.1; p=0.0004). Significantly more mirtazapine-treated patients were HAMD responders at week 1 (23.8% vs. 8.9%, p=0.002) and week 4 (58.3% vs. 44.5%, p=0.40). Statistically significant differences favoring mirtazapine were also found on other factors/ subscales of the HAMD. Tolerability of both treatments was good, with more complaints of weight increase and influenza-like symptoms in the mirtazapine group, and nausea, vomiting, tremor, and sweating in the paroxetine group.

Conclusions: Mirtazapine and paroxetine were equally effective and well tolerated. Mirtazapine was significantly more effective than paroxetine especially after the first week of therapy, and consecutively during weeks 2 to 4, as indicated by 17-HAMD scores, several HAMD factors/subscales and the percentage of responders. These results suggest potentially faster onset of action of mirtazapine.

NR467 Wednesday, May 19, 12 noon-2:00 p.m. Serotonin Transporter Regulation in an h-Serotonin Transporter-Expressing Neurosa Culture: Effects of Substrate and Inhibitors

Karley Y. Little, M.D., Department of Psychiatry, University of Michigan, 116-A, Psychobiology, AAVAMC, Ann Arbor MI 48105; Lian Zhang, Ph.D., Huailing Zhong, Ph.D.

Summary:

Experiments in intact animals have yielded conflicting results regarding regulation of serotonin transporter (SERT) function by chronic stimulant and antidepressant treatments. Midbrain samples from human cocaine-abusing subjects display slightly decreased SERT binding, in contrast to robustly increased striatal dopamine transporter (DAT) binding in the same individuals (*Am J Psychiatry* 155:207-213, 1998). Some investigators (but not all) have detected altered radioligand binding to the SERT in suicide-committing and depressed individuals, but the effects of antidepressant treatments have not been assessed in human post mortem brain. In the present experiments, hSERT was expressed in neuro2A neurons, and then treated with serotonin, stimulants, and antidepressants. It was hypothesized that substrate and various inhibitors would each have unique effects, as previously discovered with the hDAT in the same cell system. Wild type hSERT cDNA (inserted in the pcDNA3 vector) was expressed in a mouse neuroblastoma culture (neuro2A), As previously described for the DAT (Molec Brain Res 59:66-73, 1998). [3H]5-HT uptake was of high affinity (Km=132±43 nM), and inhibited by SERT inhibitors with expected potency and rank order. hSERT- expressing cells were treated with varying doses of serotonin, cocaine, d-amphetamine, fluoxetine, and imipramine, followed by extensive washing before further assay. Similar cultures were treated with relevant concentrations of inhibitors for 1, 6, 24, and 48 hours. 5-HT exposure markedly inhibited SERT binding and uptake in a dose-dependent manner. Sustained cocaine slightly decreased 5-HT uptake and [1251]RTI-55 binding, while high affinity SSRIs markedly decreased hSERT function. These results suggest that in addition to acutely blocking serotonin uptake, antidepressants may also decrease SERT cell surface expression, possibly by increasing internalization rates. Further experiments exploring this possibility will be presented.

NR468 Wednesday, May 19, 12 noon-2:00 p.m. Pretreatment Anxiety Does Not Predict Response to Bupropion Sustained Release or Sertraline

A. John Rush, M.D., Department of Psychiatry, UT Southwestern Medical Center, 5959 Harry Hines Blvd,Ste 9086, Dallas TX 75235-9070; Sharyn Batey, Pharm.D., Refe Donahue, Ph.D., John A. Ascher, M.D., Tom Carmody, Ph.D.

Summary:

Objectives: To determine if baseline anxiety levels were predictive of antidepressant response to bupropion SR, sertraline, or placebo in outpatients with major depressive disorder (MDD) and to determine whether bupropion SR or sertraline is preferred for use in patients with high baseline anxiety.

Methods: A retrospective post hoc data analysis was conducted using pooled data from two identical, randomized, double-blind, placebo-controlled, acute phase studies that compared bupropion SR and sertraline to placebo in adult outpatients (n=692) with MDD. Response was defined as > 50% drop in baseline HAM-D21 score and baseline anxiety was defined using the Hamilton Anxiety Rating Scale (HAMA). ANCOVA and logistic regression were used to examine the relationships between treatment and baseline HAM-A.

Results: Baseline anxiety was unrelated to differential response within either the bupropion SR or sertraline groups (p=0.43 and p=0.89, respectively). Patients were as likely to respond to either agent independent of the level of baseline (pretreatment) anxiety.

Conclusions: In patients with MDD, baseline anxiety did not predict preferential response to either bupropion SR or sertraline. These data indicate that baseline anxiety level is not a basis for selecting between bupropion SIR and sertraline.

NR469 Wednesday, May 19, 12 noon-2:00 p.m. Medication Prescribing Patterns in Adult and Geriatric Psychiatric Inpatients with a Primary Diagnosis of Bipolar Disorder

William S. Edell, Ph.D., Horizon Mental Health Mgmt, 1500 Waters Ridge Drive, Lewisville TX 75057; Sandra L. Tunis, Ph.D., Kristina L. Greenwood, Ph.D., Prudence Z. Lim, M.P.H.

Summary:

This study examined medication prescribing in cohorts of adult (n = 458) and geriatric (n = 824) inpatients with a primary diagnosis of bipolar disorder. Only about half of the adults and one third of the geriatric patients were taking any antimanic agent at admission. Most (57-70%) were taking other psychotropics not identified as antimanic or antipsychotic medications. This suggests that the majority of those with bipolar disorder were not properly medicated at time of inpatient admission. The percentage of bipolar patients placed on an antimanic agent by discharge increased from 61% to 64% for adults and 48% to 55% for geriatric patients. Of concern is that almost 40% of the adults and 50% of the geriatric patients are not placed on any antimanic agent at discharge. Results suggest that clinicians are not currently prescribing antimanic agents for sizable proportions of bipolar disorder patients treated in inpatient settings. Relatively

high rates of Zyprexa use alone were identified at discharge for patients with bipolar disorder. This suggests that clinicians in the "real-world" are viewing Zyprexa as a viable alternative to the standard antimanic agents in the pharmacologic treatment of this disease.

Funding: Eli Lilly and Company.

NR470 Wednesday, May 19, 12 noon-2:00 p.m. Appropriate Use of SSRIs: Diagnosis and Dose at Time of Initial Use

Danielle L. Loosbrock, M.H.A., Health Outcomes, Eli Lilly and Company, Lilly Corporate Center/DC 1850, Indianapolis IN 46205; Rebecca L. Robinson, M.S., Molly E. Tomlin, M.S., Thomas W. Croghan, M.D.

Summary:

The diagnosis of antidepressant recipients varies with the reporting mechanism. This study describes the uses and dosage levels for initial antidepressant prescriptions, stratified by diagnosis and physician specialty, for three selective serotonin reuptake inhibitors (SSRIs) (fluoxetine, paroxetine, sertraline), as reported in the National Disease and Therapeutic Index™ Physician Survey from 2/97 to 1/98. Depression accounted for 76.1% of the total SSRI prescriptions, while anxiety states (7.7%), obsessive compulsive disorder (1.9%), stress (1.4%), phobia (0.8%), eating disorders (0.7%), obesity (0.6%), schizophrenia/paranoia (0.3%) and an "all-other" category (10.6%) comprised the remaining diagnoses. Across indication and physician specialty type, the initial average daily dose (mg/day) was 20.2 for fluoxetine, 18.8 for paroxetine, and 60.2 for sertraline. The initial average daily dose (mg/day) by psychiatrists and PCPs, respectively, for depression was: 22 vs. 19.5 for fluoxetine, 19.6 vs. 18.5 for paroxetine, and 72.7 vs. 55.8 for sertraline. In conclusion, results indicate that, when PCPs and psychiatrists confidentially log their prescription patterns, SSRI use primarily falls within recommended indications and dose ranges.

Funding: Eli Lilly and Company.

NR471 Wednesday, May 19, 12 noon-2:00 p.m. DHEA-S and Depression During Ovarian Suppression

C.R. Parker, Jr., Ph.D., OB/Gyn, University of AL-Birmingham, 618 20th Street S/OHB 345, Birmingham AL 35233; Julia K. Warnock, M.D., J. Clark Bundren, M.D., David W. Morris, M.A.

Summary:

Objectives: Adrenal function is influenced by ovarian function and cortisol production is altered in depression. Treatment of women with gonadotropin releasing hormone agonists (GnRHa) to suppress ovarian steroidogenesis in cases of endometriosis provides a unique opportunity to investigate the effects of hypoestrogenism on adrenal androgen (DHEA-S) production and mood.

Design: DHEA-S concentrations, which unlike cortisol vary little during the day, were measured at baseline and during 16 weeks of GNRHa (Lupron 3.75mg IM depot) in 14 premenopausal women. Depressive symptoms were assessed using the Hamilton Rating Scale for Depression (HRSD-21). The women also were randomized to receive sertraline or placebo during GnRHa therapy.

Results: Serum DHEA-S declined slightly (25%) by the second month of ovarian suppression, $P < 0.05$. The HRSD scores of women randomized to sertraline were lower than those receiving placebo, which increased significantly after ovarian suppression. DHEA-S levels were weakly, positively ($P < 0.2$) correlated to HRSD scores.

Conclusions: Ovarian suppression causes increases in depressive moods and slight reductions in DHEA-S production. Antidepressant therapy, although effective, did not influence DHEA-S levels. The correlation of DHEA-S levels to HRSD scores suggests a relation between production of this adrenal and rogen and depression.

This work was supported in part by Pfizer Inc.

NR472 Wednesday, May 19, 12 noon-2:00 p.m. Predictors of an Acute Antidepressant Response to Fluoxetine and Sertraline

Martine F. Flament, M.D., Cleramoaultere, CNRS UMR 7593, Hop Salpetriere 42BD Hospital, Paris 75013, France; Roger M. Lane, M.D., Ying Zhiliang

Summary:

Objective: Analyze the efficacy by subgroup of patients at baseline with melancholia, severe depression, single episode, multiple episodes, high anxiety, low anxiety, psychomotor retardation and psychomotor agitation from a randomized, double-blind, six-week study comparing sertraline (50-100 mg/day) with fluoxetine (20-40 mg/day) in 286 outpatients with major depression (Bennie et al, 1995).

Methods: Multiple logistic regression with regressors including treatment-by-subgroup variables revealed that within certain subgroups the efficacy might differ substantially from that of the whole treatment group. However, the only treatment-by-subgroup interaction term that was significant was anxiety ($p<0.05$). There was no evidence of interaction in single or recurrent episode subgroups and these were not included in subsequent analyses.

Results: Subsequent two-sample statistical comparison tests of response, i.e., HAM-D reduction (50%) rates at study endpoint between treatment groups, demonstrated response rates in sertraline- and fluoxetine-treated patients, respectively, of: overall study 59%, 51%; melancholia 59%, 44% ($p<0-05$); severe depression 59%, 41%; low anxiety 71%, 55%; high anxiety 47%, 48%; psychomotor retardation, 48%, 46%; and psychomotor agitation 62%, 39% ($p<0.05$). Multiple logistic regression adjusting for possible confounding factors, which included a treatment by anxiety interaction term, showed that significant differences existed in favor of sertraline patients with low anxiety in the melancholia and severe depression subgroups ($p<0.05$), indicating that these characteristics predicted a superior response to sertraline relative to fluoxetine. Sertraline also demonstrated significant advantages over fluoxetine on parameters such as sleep and weight disturbance in severely depressed patients and sleep disturbance, weight, cognitive disturbance, and retardation in melancholic patients.

Conclusion: Fluoxetine may be less efficacious than sertraline in patients with melancholic and severe depression.

NR473 Wednesday, May 19, 12 noon-2:00 p.m. Controlled Release and Immediate Response: Brain Lithium Levels and Adverse Effects

Christina M. Demopulos, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WACC-812, Boston MA 02114; Constance Moore, M.D., Perry F. Renshaw, M.D., Sharon H. Rackow, B.A., Gary S. Sachs, M.D.

Summary:

Objective: To examine brain:serum lithium ratios, and assess adverse effects in subjects taking CR versus IR lithium preparations.

Method: Eleven euthymic, lithium-treated, bipolar subjects, mean age 33.9±7.4 years, followed a standardized B.I.D. dosing schedule of CR or IR lithium for a minimum of seven days. They then had a proton MRI, 7Li-MRS, serum lithium level and clinical ratings 10-12 hours after last lithium dose. Following the scan, subjects were crossed over to the other lithium preparation for a mean of 9.82 ± 4.5 days before repeating the above measures. Adverse events were recorded.

Results: Ratios of brain:serum lithium were 14% higher with CR lithium but were not statistically significant (n=9, paired t=0.92, p=0.38). Two subjects with brain serum ratios >1.0 were excluded. 73% of patients opted to remain on CR lithium. 46% of patients reported greater mood stabilization on CR lithium. The most common side effect was tremor, present in 36% of the CR group and 28% of the IR group. Eighteen percent of patients reported tremor on both preparations; among these, tremor was more severe on IR lithium.

Conclusion: Many adverse effects of lithium may reflect peak serum levels. Compared to IR, CR preparations are associated with broader, lower absorption peaks, suggesting that at equivalent serum lithium levels, CR preparations may yield higher brain lithium levels and offer better protection against recurrence with fewer adverse effects.

NR474 Wednesday, May 19, 12 noon-2:00 p.m.
Evaluating the Cornell Dysthymia Rating Scale in a Population of 116 Dysthymic Outpatients

Sarai Batchelder, Ph.D., Department of Psychiatry, Beth Israel Medical, 1st Ave & 16th Street, Pos 2-B, New York NY 10003-2992; Margarita Borisovskaya, B.A., David J. Hellerstein, M.D., Agnes Lee, B.A.

Summary:

Introduction: Mason et al. developed the Cornell Dysthymia Rating Scale (CDRS), a 20-item clinician-rated inventory, and hypothesized that it may be superior to the commonly-used Hamilton Depression Rating Scale (HAM-D) in assessing the symptoms of dysthymia or chronic depression. The purpose of this study was to compare these instruments in an outpatient sample of 116 dysthymic patients.

Method: The CDRS and the HAM-D and other inventories (including the Hopkins Symptom Check List [SCL]) were administered to 116 patients meeting DSM-III-R diagnosis of dysthymia.

Results: There was a significant correlation between the CDRS and the HAM-D at baseline and termination. Distributional statistics were compared for baseline and termination severity scores, showing that the CDRS has greater severity range scores than the HAM-D. When compared to patient-rated scales at baseline, the CDRs were more highly associated with the SCL depression and anxiety subscales than the HAM-D. In contrast, the two were similarly associated with patient-rated scales at termination. Furthermore, results of the DSM-IV Mood Disorders Field Trial suggest that the CDRS has better content validity than the HAM-D when it comes to the dysthymic population.

Conclusions: Our results support the value of the CDRS in assessing symptoms of dysthymia.

NR475 Wednesday, May 19, 12 noon-2:00 p.m.
Comorbidity, Social Support and Major Depression

Christine E. Ryan, Ph.D., Department of Psychiatry, Rhode Island Hospital, 593 Eddy Street, Providence RI 02903; Gabor I. Keitner, M.D., Michael D. Stein, M.D., David A. Solomon, M.D.

Summary:

Objective: Major depression often occurs in conjunction with other medical and psychiatric illnesses. This study focusses on the kinds of additional illnesses, the effects these illnesses have on an episode of major depression, and whether the patient's support system has a mitigating influence on the depression despite these added burdens.

Method: Comorbid psychiatric and medical illnesses were assessed in 20 patients hospitalized with a DSM-IV diagnosis of major depression by trained research interviewers and by a board-certified internist. Data were collected at the acute phase and at six monthly follow-ups.

Results: Acute phase analysis showed only Two of 20 patients without a concurrent medical or psychiatric illnesses. 50% of these patients had another Axis I, 35% an additional Axis II, and 50% an additional Axis III diagnosis. Eight out of 20 patients had two or more comorbid conditions. Most patients reported unhealthy family functioning, few friends, several life events, and a change in the ability to get along with other people. Analyses on the effect comorbid conditions have on the course of depression at six months will be presented.

Conclusion: The majority of patients hospitalized with major depression had significant comorbid illnesses distributed evenly between Axis I, II, and III.

NR476 Wednesday, May 19, 12 noon-2:00 p.m.
Efficacy and Tolerability of Mirtazapine Versus Citalopram in Major Depression: A Double-Blind, Randomized Study

Hans Agren, Ph.D., Department of Psychiatry, Karolinska Institute, M56 Huddinge University Hosp, SE 141-86 Huddinge, Sweden; Esa Leinonen, M.D., Jon Skarstein, M.D., Kerstin Behke, M.D., Albert-Jan Schutte, M.D.

Summary:

Objective: To compare the antidepressant and anxiolytic effects, tolerability, and effects on quality of life of mirtazapine and citalopram in a randomized, double-blind, multicenter study.

Materials and methods: Patients with a major depressive episode (DSM-IV) and a baseline score of ≥22 on the MADRS were randomized to 6 months of treatment with either mirtazapine (n≈137, 15-60 mg/day) or citalopram (n=133, 2040 mg/day); the results of first 8 weeks of treatment are presented here. Efficacy was evaluated by the MADRS, HAM-A, CGI, LSEQ, and QLES on the ITT group using the LO C F method. Vital signs and laboratory variables are measured and adverse events recorded weekly.

Results: The mean doses were 35.9 mg/day of mirtazapine and 36.6 mg/day of citalopram. 87% of the mirtazapine- and 94% of the citalopram-treated patients completed the 56-day study period. Both treatments substantially improved overall depressive and anxiety symptoms, sleep disturbances, and quality of life. At day 14 statistically significantly larger magnitudes of change favoring mirtazapine were present in the MADRS, HAM-A and CGI-Severity of Illness and Quality of Life scores. Both drugs were well tolerated. Sweating and nausea were signifi-

cantly more frequent in the citalopram group and increased appetite and weight increase in the mirtazapine group.

Conclusions: Mirtazapine and citalopram were equally effective in reducing symptoms of depression and anxiety, and well tolerated. However, mirtazapine was significantly more effective than citalopram after two weeks of treatment on MADRS, HAM-A, and CGI-Severity of Illness and Quality of Life scales. This finding, consistently present at all major efficacy variables, suggests potentially faster onset of action of mirtazapine.

NR477 Wednesday, May 19, 12 noon-2:00 p.m. Topiramate in Rapid-Cycling Bipolar Women

Vivek Kusumakar, M.D., Department of Psychiatry, Dalhousie Univ/Grace Hlth Ctr, 5850 University Avenue; Lakshmi N. Yatham, M.B., Claire A O'Donovan, M.D., Stanley P. Kutcher, M.D.

Summary:

Objective: The objective of this study was to evaluate the efficacy of topiramate in female patients with refractory rapid cycling bipolar disorder (DSM-IV) and significant weight gain from previous treatment.

Method: Charts of 19 female outpatients (aged 18-52 years) were reviewed. Topiramate was added to existing therapy (lithium or divalproex) in initial doses of 25 mg/day and titrated upward by 25 mg increments weekly to response. The average maximum daily dose of topiramate was 105.2 mg/day. Improvement was rated with an assessment of mood (severity and cycle length), sleep, and weight loss.

Results: Of the 19 patients treated with topiramate, 15 completed the study. Improvement in mood stability was observed in all subjects on or before week 10. Mood stability was achieved in eight (53%) patients who completed the study, and two (13%) patients showed a significant improvement in mood. Five (33%) patients exhibited a weight loss of >5% and two exhibited a 1-4% reduction. Drowsiness, ataxia and confusion, and reemergence of psychosis were the reasons for discontinuation in four patients.

Conclusion: Topiramate shows much promise not only as a mood stabilizer but also in effectively dealing with morbid weight gain. Further study is needed.

NR478 Wednesday, May 19, 12 noon-2:00 p.m. Switching to Mirtazapine in Everyday Clinical Practice: A Naturalistic Study in the Netherlands

Anthony Boumans, Nourypharma BV, Griekenweg 25, Postpus 500, Oss 5340AM, Netherlands; Albert-Jan Schutte, M.D., Hans den Boer, M.D.

Summary:

Aim: To assess efficacy and tolerability of mirtazapine (15-60 mg/day) in depressed patients after switching from other antidepressants in an open-label, non-comparative naturalistic study.

Methods: Patients treated by psychiatrists or GPs and changing antidepressants due to various reasons, were included and assessed by a checklist in Dutch language at screening, after 2-3 weeks and 3 months after starting mirtazapine.

Results: Out of 521 patients aged 20-90 years, 85% had a disorder of moderate or marked severity; 61% complained of insomnia, 39% of dry mouth, 39% of dizziness, and 40% of loss of libido. Patients switched from SSRIs (55%), TCA (21%), or other antidepressants (23%) due to lack of efficacy (45%), side effects (26%), or the combination (26%). Mean dose at endpoint was 37.0 mg/day; 15.7% of all patients dropped out. Depressed mood was very much or much improved at the endpoint in 72% of all patients; insomnia disappeared or improved in 79% of affected patients, dry mouth in 70%, dizziness in 82%, and loss of libido 73%. Any mirtazapine-related adverse events were reported by 34% of the patients at assessment 2, while after three months the incidence decreased to 20%. At all assessments adverse events were reported by ≤5% of patients.

Conclusion: Despite the methodological limitations, the results of this naturalistic study are in line with results of randomized, double-blind studies of mirtazapine. The low percentage of dropouts due to adverse events at assessment 2 (2.7%) suggests that interactions are not likely to occur after switching from other antidepressants to mirtazapine. The results demonstrate that in everyday clinical practice mirtazapine is efficacious and well tolerated by depressed patients switching from other antidepressants.

NR479 Wednesday, May 19, 12 noon-2:00 p.m. Switching to Mirtazapine from SSRIs in Everyday Clinical Practice: A Naturalistic Study in the Netherlands

Hans den Boer, M.D., Biological Psychiatry, Academic Hospital, PO Box 3001, Groningen 970ORB, The Netherlands; Albert-Jan Schutte, M.D., Anthony Boumans

Summary:

Aim: To assess efficacy and tolerability of mirtazapine (15-60 mg/day) in depressed patients after switching from SSRIs in an open-label, noncomparative naturalistic study.

Methods: Patients treated by psychiatrists or GPs and changing antidepressants due to various reasons, were included and assessed by a checklist in Dutch language at screening after 2-3 weeks and three months after starting mirtazapine.

Results: Out of 296 patients aged 20-90 years, 43% were treated with paroxetine, 31% with fluoxetine, 21% fluvoxamine, and 5% with sertraline, which is in line with market shares of respective SSRIs in the Netherlands. The reasons for switching were lack of efficacy (45%), side effects (28%), or their combination (25%). At baseline 62% of patients complained of insomnia, 44% of headache, 41% of libido loss, 39% of nausea, and 16% of erection dysfunctions. Mean dose at endpoint was 36.1 mg/day; 15.2% of all patients dropped out. Depressed mood was very much or much improved at the endpoint in 73% of all patients; insomnia disappeared or improved in 79% of affected patients; headache in 84%, libido loss in 75%, nausea in 84%, and erection dysfunction in 83%. Any mirtazapine-related adverse events were reported by 37% of the patients at assessment 2, while after three months the incidence decreased to 23%. The only adverse event reported by ≥5% of patients was somnolence.

Conclusion: Despite the methodological limitations, the results of this naturalistic study are in line with results of randomized, double-blind studies of mirtazapine. The low percentage of dropouts due to adverse events at assessment 2 (3.0%) suggests that interactions are not likely to occur after switching from an SSRI to mirtazapine. The results demonstrate that in everyday clinical practice mirtazapine is efficacious and well tolerated by depressed patients switching from SSRIs.

NR480 Wednesday, May 19, 12 noon-2:00 p.m.
Psychosocial and Personality Outcomes in Major Depression: Results of a Six-Month, Double-Blind Comparison of Sertraline and Paroxetine

Anna Aberg-Wistedt, Department of Psychiatry, St. Gorans Hospital, St. Goransgatan 141, Stockholm S11281 11281, Sweden; Hans Agren, Ph.D., Roger M. Lane, M.D.

Summary:

Objective: The current investigation reports the differential effect of six months of continuation therapy with sertraline vs. paroxetine on psychosocial and personality outcomes, in addition to long-term effects on depressive symptoms.

Methods: Outpatients with a DSM-III-R diagnosis of unipolar major depression were randomized to 24 weeks of double-blind treatment with flexible doses of either paroxetine (20-40 mg) or sertraline (50-150 mg), and assessed on the MADRS, CGI, Battelle Quality of Life questionnaire, as well as pre and post-treatment assessment with the Karolinska Scales of Personality (KSP) and the SCID H.

Results: 176 patients (mean age, 43 yrs; 64% female; baseline MADRS, 30.3) were treated with sertraline and 177 patients (mean age, 42 yrs; 71% female; baseline MADRS, 30.7) with paroxetine. Significant baseline impairments were noted in quality of life. Axis II comorbidity was common (Cluster A, 30%; Cluster B, 34%; Cluster C, 54%). Antidepressant efficacy during continuation therapy was not only sustained, but enhanced, with substantial conversion of acute treatment responders to remitter status during continuation therapy. But contrary to expectation, most of the improvements in quality of life occurred during initial acute therapy, not during continuation therapy. SSRI monotherapy had a significant effect on both categorical and dimensional measures of personality.

Conclusions: Between-drug differences in outcome will be discussed, as well as the clinical implications of study findings for the management of depression.

NR481 Wednesday, May 19, 12 noon-2:00 p.m.
Trial to Identify and Treat Early Relapse in Bipolar Disorder

Richard K. Morriss, M.D., Department of Psychiatry, Manchester University, Royal Preston Hospital Fulwood, Preston Lancashire PR29HT, Great Britain; Alison Perry, B.Sc., Nicholas Tarrier, Ph.D., Eilis McCarthy, B.Sc., Kate Limb, B.Sc.

Summary:

Objective: To determine the efficacy of teaching bipolar disorder patients to identify early symptoms of relapse and seek early treatment from health services.

Method: Single-blind, randomized controlled trial in four British mental health services involving 69 patients with DSM-III bipolar disorder who relapsed in the previous 12 months and matched on four baseline clinical variables. Patients received 7 to 12 individual treatment sessions from a research psychologist plus routine care, or routine care from psychiatric services alone. Main outcome measures analyzed on intention to treat basis were time to first manic or depressive relapse, number of manic or depressive relapses, and social functioning examined by standardized interviews six monthly over an 18-month period.

Results: 25th centile time to first manic relapse in experimental group was 65 weeks compared to 17 weeks in the control group (event curves significantly differed, p=0.008). Over 18 months, experimental treatment significantly reduced number of manic relapses (median differences = 30%, p=0.013), improved overall social functioning (p=0.003) and employment performance (p=0.030), but no effects on time to first relapse or number of relapses with depression.

Conclusion: Our intervention was associated with important clinical improvements in time to first manic relapse and social functioning.

NR482 Wednesday, May 19, 12 noon-2:00 p.m.
Follow-Up of a First Admission Affective Disorders Cohort: Predictors of Rehospitalization Over 12 Years

Karen L. Swartz, M.D., Department of Psychiatry, Johns Hopkins, 600 North Wolfe Street/M 3-181, Baltimore MD 21287; Gail L. Ullrich, M.S.W., John A. McGrath, M.A., Melissa Carswell, M.A., Paula S. Wolyniec, M.A., Krista D'Aiello, M.S.W., Anne E. Pulver, Sc.D.

Summary:

To assess predictors of clinical course and outcome, an epidemiologic cohort of subjects with a first admission for psychotic affective illness was followed up 9-15 years after their initial assessment. Subjects were initially assessed between 1983 and 1989. Six months after the index hospitalization, best estimate diagnoses based on clinical interview, medical records, and follow-up interview at six months were assigned by psychiatrists. The psychiatrists also rated a six-month outcome score based upon length of initial hospitalization, clinical symptoms, employment status, and social functioning. In a preliminary follow-up study of this cohort, telephone contact was initiated with the 314 subjects who had an initial diagnosis of major depression or bipolar disorder. Telephone contact was successful with 165 (53%) of the subjects; 29 had died (9%), and 120 were not contacted (38%). Extensive tracing methods were not employed for this preliminary study. A total of 152 subjects completed the telephone interview providing information about their current treatment and need for rehospitalization during the follow-up period, which averaged 12 years. Seventy four (49%) of the subjects had been rehospitalized, while 78 (51%) had not. Younger age at first hospitalization and poor functioning at six months both predicted rehospitalization with odds ratios of 4.2 and 3.8, respectively. Analysis of the components of the outcome scale demonstrated that the strongest predictor for rehospitalization was feeling incompetent at work. Initial diagnosis, gender, education, and marital status did not predict rehospitalization.

NR483 Wednesday, May 19, 12 noon-2:00 p.m.
Defensive Style and Affect in Bipolar Disorder

Joyce E. Whiteside, B.A., Department of Psychiatry, Payne Whitney, 420 East 76th Street, New York NY 10021; Joseph F. Goldberg, M.D., Martin A. Goldstein, M.D., Tara M. Singer, M.A., Linda S. Mullen, M.D., Steven P. Roose, M.D., Carrie J. Endick, B.A.

Summary:

Objective: To date, there has been almost no research on the nature of interpersonal defensive style and its relationship to affective symptoms in bipolar patients. Maladaptive personality characteristics may be related to poor outcome in bipolar disorder, but further research is needed to clarify the complex relationship between bipolar Axis I and II psychopathology.

Methods: Twenty-five nonpsychotic bipolar patients were assessed by SCID-IV, 31-item HAM-D, the MRS-SADS, and the Defense Style Questionnaire (DSQ).

Results: Subjects had a mean age of 40(±15.6) years; 80% were male, 90% were white, 40% were euthymic (i.e., HAM-D ≤ 12 and MRS-SADS ≤ 8) at interview. Mean HAM-D scores were 17.7 (±14.2), and mean MRS-SADS scores were 7.6 (±11.1). At least 60% of subjects endorsed pseudo-altruism, acting-out, and splitting. Symptomatic subjects were more likely to endorse acting out (t=2.77, p <.03), and isolation of affect (t=2.78, p <.03). Maladaptive defense patterns were associated with depressive (r=.67 p <.03) but not manic symptoms (r=.24, p <.50).

Conclusions: Affectively symptomatic bipolar patients are more likely to exhibit primitive defense styles (e.g. acting-out and isolation of affect). Depressive affect may be a more important determinant of defensive style than manic symptoms in bipolar patients.

NR484 Wednesday, May 19, 12 noon-2:00 p.m.
Efficacy and Tolerability of Venlafaxine and Paroxetine in Outpatients with Mild to Moderate Depression or Dysthymia

Dr. Yolanda Riesgo, Scientific CNS, Wyeth Lederle, Apartado 471, Madrid 28080, Spain; Professor Carlos Ballus, Dr. Gonzalez Quiros, Dr. Tomas De Flores, Dr. Jaime De La Torre, Diego J. Palao, M.D., Dr. Luis Rojo

Summary:

Efficacy and tolerability of venlafaxine and paroxetine was evaluated in 24-week, double-blind, randomized trial in patients with mild-moderate major depression or dysthymia. Outpatients aged 18-70 with baseline score of 17 on 21-item Hamilton Depression Rating Scale (HAM-D) were eligible. Patients were randomized to venlafaxine 37.5 mg bid. or paroxetine 20 mg (morning) and placebo (evening), which could be increased to venlafaxine 75 mg bid or paroxetine to 20 mg bid after four weeks. Efficacy was assessed with 21-item HAM-D, MADRS, HAM-A, and CGI Scale. 41 patients were randomized to venlafaxine and 43 to paroxetine. Week 6: response was observed in 55% of venlafaxine patients and 29% on paroxetine (p = 0.03). Week 12: significantly (p = 0.011) more patients in venlafaxine group had HAM-D remission score of 8 or less (59% vs. 31%). Discontinuation for any reason occurred in 16 (39%) venlafaxine patients and 11 (26%) on paroxetine. The two most common adverse events with venlafaxine were nausea (28%), headache (18%), and with paroxetine headache (40%) and constipation (16%). A consistently higher proportion of patients had response or remission on venlafaxine than on paroxetine. Venlafaxine was significantly more effective than paroxetine and was well tolerated during six months of treatment.

NR485 Wednesday, May 19, 12 noon-2:00 p.m.
The Relationship Between Personality and Neuropsychological Functioning in Male Pedophiles

Lisa J. Cohen, Ph.D., Department of Psychiatry, Beth Israel Medical Center, 1st Avenue and 16th Street, New York NY 10003; Igor I. Galynker, M.D., Ken Cullen, C.S.W., Olga Poznansky, B.A., Sniezyna Watras-Gans, Ph.D., Sean Murphy, B.A., Marrina Moshkovich, M.D.

Summary:

Introduction: Pedophilia is one of the few psychiatric disorders in which the symptoms constitute criminal behavior. Despite this, there is surprisingly little psychiatric research on pedophilia. Available data suggest high levels of antisocial and paranoid traits, poor impulse control, disturbed interpersonal relationships, and significant denial of psychopathology. The current presentation is drawn from a larger study of personality and neuropsychological function in male heterosexual pedophiles.

Methods: Twelve pedophiles, recruited from an outpatient clinic for sex offenders, were compared with 32 depressed inpatients on the MCMI-2. Personality findings were then correlated with neuropsychological findings.

Results: Two-group MANOVA of MCMI-2 results was highly significant (p<.009). Univariate tests revealed elevated histrionic, narcissistic, and antisocial scores and lowered levels of anxiety and dysthymia in pedophiles. The groups also differed in social desirability and self-debasement response biases, with pedophiles consistently attempting to portray themselves positively. As debasement correlated more strongly than did social desirability with MCMI-2 scores, another MANOVA, covaried for debasement, was performed. The corrected MANOVA differed significantly across groups, as did four out of five Cluster B diagnoses (Histrionic, Narcissistic, Antisocial, and Aggressive/Sadistic). Of note, several Cluster A diagnoses (Schizotypal, Paranoid) were also elevated in pedophiles, along with measures of thought disorder and delusional disorder. When MCMI scores were correlated with neuropsychological measures of executive functions, an unusually strong pattern of correlations emerged. Tests of verbal functions (Vocabulary, Information and COWA) and of Impulse Control (Gambling Task) were highly correlated with MCMI scores, particularly Cluster A and B measures, while measures of visual-spatial executive functions were not.

Conclusions: Results suggest that pedophiles are characterized by considerable personality pathology, particularly in the impulsive (Cluster B) domain. It is possible that comorbid Cluster A features and disturbances in reality testing may differentiate pedophiles from other impulsive-aggressive groups. Moreover, personality pathology is related to deficits in verbal functions and cognitive impulsivity. Impulsivity and psychotic processes could present target symptoms for treatment of pedophiles.

NR486 Wednesday, May 19, 12 noon-2:00 p.m.
Low Dopamine D2 Receptor Binding in Social Phobia

Franklin R. Schneier, M.D., Dept of Therapeutics, NY State Psychiatric Institute, 1051 Riverside Drive, New York NY 10032; Michael R. Liebowitz, M.D., Anissa Abi-Dargham, M.D., Yolanda Zea-Ponce, Ph.D., Shu-Hsing Lin, Ph.D., Marc Laruelle, M.D.

Summary:

Objective: Social phobia, and the generalized subtype of social phobia in particular, has been associated with dysfunction of the dopamine system, but there have been no studies of CNS dopamine D_2 receptor binding potential (BP) in social phobic subjects.

Method: Dopamine D_2 receptor BP was assessed in ten unmedicated subjects with generalized social phobia and no significant lifetime psychiatric comorbidity, and in ten healthy comparison subjects matched for age and sex. BP was measured in the striatum, using single photon emission computerized tomography (SPECT) and the D_2 receptor radiotracer [^{123}I] IBZM.

Results: Mean D_2 receptor BP was significantly lower in subjects with generalized social phobia compared with healthy control subjects (t=2.6, df=18, p=.01 8; mean = 93.6 ml/g, SD=29.8 vs. mean=133.5 ml/g, SD=38.2). In an additional exploratory analysis, several measures of anxiety related to social interactions were significantly negatively associated with BP, within the generalized social phobia group.

Conclusions: Generalized social phobia may be associated with a decreased level of binding of [^{123}I] IBZM to D_2 receptors in the striatum. Findings are discussed in relation to human and animal studies of dopamine function, social anxiety, and reward.

This study was funded by the Sycamore Foundation and Solvay Pharmaceuticals.

NR487 Wednesday, May 19, 12 noon-2:00 p.m.
A Case-Controlled Study of 75 Virgin Sex Offenders

Kathy Smolewska, Forensics, Clarke Institute, 250 College Street, Toronto ON M5T 1R8, Canada; J. Paul Fedoroff, M.D., Beverly Moran, B.Sc.

Summary:

Introduction: While great effort has gone into studying the criminal offenses of men with paraphilic disorders, little attention has been paid to their noncriminal sexual activities. This study was intended to investigate the noncriminal sexual activities in a series (n=150) of men accused of criminal sexual behavior.

Method: The first 75 men who said they had never had sexual intercourse with anyone (virgins) who had been referred to a forensic clinic because of concerns about their sexual behaviors, were age-matched to 75 men from the same clinic who had past experience with sexual intercourse (non-virgins).

Results: Out of a clinic sample of 238 men referred for sexual concerns, 32% claimed to be virgins. Virgins were found to be significantly more likely than non-virgins to have "courtship disorder" paraphilias (28% vs. 15%) (X2=4.0 df=1 p<0.05). Virgins were also more likely to show signs or symptoms of Asperger's syndrome 21% vs. 4% (X2=10.2 df,=n P<0.001).

Conclusions: A third of sex offenders are virgins. Of these, a third may have Aspergers syndrome, which can predispose these men to misperceive social situations. Some sex crimes may be due to asocial behavior rather than antisocial behavior.

NR488 Wednesday, May 19, 12 noon-2:00 p.m.
Frontal Lobe Related Cognitive Functions and Impulsivity in Pedophilic Men

Igor I. Galynker, M.D., Department of Psychiatry, Beth Israel Medical Center, 1st Ave at 16th St/6 Karpas, New York NY 10003; Lisa J. Cohen, Ph.D., Olga Poznansky, B.A., Marrina Moshkovich, M.D., Sean Murphy, B.A., Sniezyna Watras-Gans, Ph.D., Ken Kullen, C.S.W.

Summary:

Introduction: Patients with pedophilia were reported to exhibit impulsivity as well as paranoid and antisocial traits. However, the underlying neurobiological substrates and their role in the clinical pathology of pedophilia remains unknown. The purpose of the present study was to assess the role of frontal cortex in impulsive behavior of pedophiles.

Method: Fifteen male pedophiles recruited from an outpatient clinic for sex offenders were administered neuropsychological tests sensitive to dorsolateral frontal pathology (Wisconsin Card Sorting Test (WCST), Trailmaking Test, Stroop Color-Word Test, Controlled Oral Word Association (COWA)) and to medial frontal pathology, such as a measure of impulse control, the gambling task. Impulsive personality traits were measured on the MCMI-2.

Results: The subjects scored well below norms on measures of intelligence (WAIS-R Vocabulary 7.21 ± 2.8, Information 7.43 ± 2.9). Male pedophiles performed within norms on tests measuring sustained attention, such as Trails A, Stroop A and B. The subjects performed well below norms on tests reflecting dorsolateral frontal pathology such as WCST (# of categories and # of perseverative errors) and in tasks reflecting medial frontal pathology (Gambling Task A/B and C/D). Neuropsychological tests were not intercorrelated but verbal tests (WAIS-R Vocab and Info, COWA total) and the gambling task did correlate with measures of impulsive personality traits on the MCMI-2.

Conclusions: These results support previous findings of poor impulse control and implicate the medial frontal cortex in the etiology of impulsivity in pedophiles. These findings suggest that treatment for impulsivity could be a viable treatment strategy for male pedophiles.

NR489 Wednesday, May 19, 12 noon-2:00 p.m.
The Prognostic Significance of Hospitalized Depression in Primary Invasive Breast Cancer: A Nationwide Cohort Study in Denmark

Karen Hjerl, M.D., Department of Psychiatry, Bispebjerg University Hospital, DK 2400 Copenhagen NV

Summary:

Objective: To investigate whether depression defined as psychiatric admission with affective or neurotic disorder (classified according to ICD-8) pre- and/or postoperatively had impact an length of survival after primary invasive breast cancer.

Design: Cohort study based upon three nationwide registries: The Danish Psychiatric Central Register, The Danish Breast Cancer Co-operative Group (DBCG), and The Danish National Register of Causes of Death.

Setting: Denmark.

Subjects: The study population was comprised of 20,593 breast cancer patients registered in DBCG between 1979 and 1993. A first-ever admission due to depression was seen preoperatively in 575 patients (2.8%) and postoperatively in 201 patients (1.0%).

Main outcome measures: Death, adjusted for age,menopausal state, medical treatment periods, number of axillary lymph nodes removed, number of tumor-positive axillary lymph nodes, and histological grade.

Statistics: Cox-regression. Survival analysis with censoring unnatural causes of death.

Results: Preoperative depression was associated with significantly increased relative risk (RR) of death. Postoperative depression was associated with a significantly increased (RR) of death in patients with early-stage but not in patients with advanced-stage disease.

Conclusion: Depression seems to be associated with increased relative risk of death In breast cancer patients.

NR490 Wednesday, May 19, 12 noon-2:00 p.m.
Influence of Meteorological Factors in Patients with Migraines

Galina Mindlin, M.D., Department of Psychiatry, Jefferson Medical College, 1020 Sansom St/1652 Thompson, Philadelphia PA 19107; Ashwin A. Patkar, M.D., Olga Kolosova, M.D.

Summary:

Objectives: The goals of the study were: 1) to determine whether measures of psychophysiological reactivity in individuals with migraine are related to environmental stimuli including meteorological factors (M-factors) such as changes in atmospheric pressure, temperature, humidity and wind, and 2) to investigate

the differences in psychophysiological patterns of reactivity in patients with migraine and controls with respects to M-factors.

Methods: Twenty patients with migraine and 40 controls were studied. Assessments included personality tests (MMPI & Spielberg's Anxiety Scale) and psychophysiological measures (EMG, GSR, and EEG). Atmospheric recordings were obtained from a central meteorological station. Migraine was assessed by clinical interviews and self-reports.

Results: Patients with migraine (75%) were significantly more likely to be influenced by M-factors than controls (50%). The most significant factors were low and high barometric pressure and high humidity ($p<0.05$). Furthermore, patients who reacted to M-factors were more likely to be women, of older age, with high introversion, high level of personal anxiety ($p<0.05$), and high GSR and EMG ($p<0.05$) compared with nonreacting patients, as well as controls.

Conclusion: Migraine seems to be influenced by meteorological stimuli, particularly low and high barometric pressure and high humidity. Moreover, there seems to be a relationship between these stimuli and personality and psychophysiological variables in patients with migraine.

NR491 Wednesday, May 19, 12 noon-2:00 p.m.

PTSD and Nonadherence in Pediatric Liver Transplant Patients

Eyal Shemesh, M.D., Department of Psychiatry, Mount Sinai, 1 Gustave Levy Place/Bx 1228, New York NY 10029; Benjamin L. Shneider, M.D., Margaret L. Stuber, M.D., Pankaj Vohra, M.D., Marie Aromando, R.N., Sukru Emre, M.D., Susan Lurie, M.D.

Summary:

Objective: Post-traumatic stress disorder (PTSD) has previously been described in a subset of pediatric cancer patients and may be a factor in adaptation to medical illness. We hypothesize that nonadherence, a major cause of morbidity in adolescent liver transplant recipients, may be associated with symptoms of PTSD, especially with the avoidance dimension (e.g., not taking the immunosupressant because it serves as a reminder of the illness). Our clinical experience suggests that treating PTSD in this population improves adherence.

Methods: Nineteen liver transplant recipients, aged 8-20, were interviewed using the UCLA Post Traumatic Stress Reaction Index (PTSRI, Pynoos et al, 1998). Adherence was reviewed by a clinician panel that was blind to the interview results. The standard deviation (S.D.) for consecutive measurements of blood levels of tacrolimus (an immunosupressant) in each patient was computed, postulating that a high S.D. is associated with reduced adherence.

Results: Six of 19 patients had a high score on all three DSM-IV-derived components of the PTSRI ("PTSD patients"). Three of these patients, but no others, were deemed nonadherent. They had significantly higher avoidance scores when compared with the rest of our sample ($t=3.06$, $p=0.007$). PTSD patients had significantly higher mean S.D. of medication levels ($t=3.1$, $p=0.011$).

Conclusions: 32% of our population reported symptoms from all three PTSD clusters; 50% of PTSD patients were nonadherent and had significantly higher avoidance scores. Medication blood levels fluctuated more in patients who reported high levels of symptoms of PTSD. We conclude that: 1) Symptoms of PTSD are relatively common in this population. 2) These symptoms were associated with nonadherence in our sample. These results suggest that PTSD may be a significant contributing factor to nonadherence and that screening and interventions aimed at symptoms of PTSD in this population may be useful.

NR492 Wednesday, May 19, 12 noon-2:00 p.m.

Are Living Related Donors Psychologically Healthy?

Aysin Noyan Kayan, M.D., Department of Psychiatry, Ege University, Inonu Caddesino 887D:15, Izmir 35350, Turkey; Hayriye Elbi, M.D., Zeki Yuncu, M.D., Demet Gulpek, M.D., Birgul Aydin, Ph.D., Abdulkadir Unsal, M.D., Ercan Ok, M.D.

Summary:

Objective: Living kidney donation plays an important role in renal transplantation in Turkey. A number of studies from Western countries have suggested that living kidney donation provides psychological well-being and increases self-esteem for most of the donors. On the contrary, our observation was the other way, our groups' somatic complaints increased after kidney donation. To enlighten some part of the process of donating an organ, that is conflict between wanting to help someone and risking one's health. As continuum, we evaluated preoperative donors and postoperative living related donors about psychological and somatic health.

Method: All volunteers (66 living donors) were interviewed with SCID (Structured Composite Interview Diagnosis) by a psychiatrist and completed MMPI somatization subscale, STAI-II (Statetrait Anxiety Inventonry), and Beck Depression Inventory. The control group (25 preoperative donors) were assessed with the same scales preoperatively.

Results: Two groups did not differ significantly in term of age, gender, socioeconomic variables, and Beck depression scores. In comparison with preoperative donor group, the living related kidney donor group has statistically significant higher scores on MMPI somatization ($p=0.001$). The preoperative donor group has significantly higher scores on the STAI-II ($p<0.001$).

Conclusion: This result showed a possible relationship between kidney loss and grief. Also this could be a way of expressing the conflict between wanting to help someone by donation and risking one's health. Especially if we consider tendency to somatisize instead of verbalizing. Since this is not prospective research, our assumptions are limited to this sample, and we are continuing to follow the preoperatively potential donors.

NR493 Wednesday, May 19, 12 noon-2:00 p.m.

Impact of Depression on Functional Status in Congestive Heart Failure

Christine E. Skotzko, M.D., Department of Psychiatry, University of Maryland, 22 South Greene Street, Baltimore MD 21201; Cathy Krichten, C.N.P., Gretchen Zietowski, Lynette Alves, Michael A. Fisher, M.D., Stephen Gottieb, M.D.

Summary:

Background: Depression is common in cardiovascular illness. We screened individuals with congestive heart failure (CHF) for depression and examined functional status of the depressed, and nondepressed groups to determine whether there were any differences.

Methods: Thirty-three adults with CHF completed the Center for Epidemiologic Studies Depression Scale (CES-) and Medical Outcome Study Short Form (MOS). Individuals underwent cardiopulmonary exercise testing (CPX) to measure maximal oxygen consumption (MV02,ml/kg/min) and Respiratory Quotient (RQ); Caltrac Accelerometer (CT,kcal) and doubly-labeled water (EE,kcal) assessment of energy expenditure.

Results: Of the 33 individuals examined, 14 (42%) scored in the depressed range (CES-D >16), 19 did not. The two groups

did not differ significantly in age, left ventricular ejection fraction energy expenditure, or most quality-of-life measures. They demonstrated significantly different RQ, indicating poorer testing effort and diminished social functioning in the depressed group.

	Age	MV02	RQ	EE	CT	MOS Social Fx
Depressed	64±11	14.1±3	0.96±.09	1655±309	3969±805	58-8±21
Non-Dep	67±7	14.4±2	1.04±.11	1734±410	4048±801	89.2±12
P Value	0.4	0.8	0.017*	0.5	0.8	0.0000*

Conclusion: Depression was common in the CHF patients examined. No functional differences between depressed and non-depressed individuals were seen. Depressed individuals demonstrated significantly decreased effort on CPX and poor social functioning. These results suggest that depressed CHF patients are not more ill, but less motivated.

NR494 Wednesday, May 19, 12 noon-2:00 p.m.
Relationship Between Psychopathology and Gastric Physiological Activity of Non-Ulcer Dyspepsia

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Summary:

Objective: It is well known that there is a relationship between psychopathoIgy, such as anxiety and depression, and non-ulcer dyspepsia (NUD). However, few studies exist that assess the relationship between gastric physiological activities and psychological variables of the NUD patients. The present study was designed to examine this relationship in NUD patients.

Method: After diagnostic evaluation of the NUD patients was done by independent physicians, 20 NUD patients completed the Symptom Checklist-90-Revised(SCL-90-R), Beck Depression Inventory(BDI), Spielberger State-Anxiety Inventory (STAI) immediately prior to electrogastrography using the EGG Microdigitrapper, Synetics Medical with AgAgCl cutaneous electrodes and gastric emptying using the ^{99m}Techetium-DTPA (Daiichi radioisotope laboratories, Japan). Correlations between all of the collected physiological data and psychological variables were calculated.

Results: The BDI score of NUD patients was 22.7±9.3, and STAI-state and STAI-trait were 50.1±11.5 and 49.2±9.6. NUD patient 3 cycle per minute (CPM) of the EGG were 53.3±19.0 at preprandial period, 40.0±22.4 at postprandial period and 49.0±16.5 at total. There were significant negative correlations between preprandial, postprandial, and total 3 CPM and the depression score of the SCL-90-R, and negative correlations between all periods of 3 CPM and the somatization score of the SCL-90-R. The time for half of the meal to empty (T50%) was 118.5±23.6 minute. There were positive correlations between T50% and BDI, and between T50% and STAI-state,

Conclusion: The conclusion of this study is that there are relationships between psychopathology (depression and somatization) and dysregulation of gastric motility, and between psychopathology (depression and state anxiety) and gastric emptying. These suggest that NUD may be a psychosomatic disorder, and psychopathoIgy may be the major explanation for NUD.

NR495 Wednesday, May 19, 12 noon-2:00 p.m.
TB Exposure in the Psychiatric Emergency Service

Glenn W. Currier, M.D., Department of Psychiatry, University of Southern CA, 1937 Hospital Place, GH150, Los Angeles CA 90033

Summary:

Introduction: This study examines rates of tuberculosis (TB) exposure in the psychiatric emergency service (PES).

Methods: A random sample of 100 PES patients received Mantoux intradermal purified protein derivative (PPD) testing, chest radiography, and a physical examination to determine evidence of tuberculosis exposure or active disease.

Results: Of 100 patients tested, 34 (34%) had positive PPD findings (>10 mm induration). Chest radiography was consistent with TB in six (18.2%), none of whom had a history of BCG vaccination or prior PPD testing. Those patients were transferred to medical services for further care. PPD positive status was marginally associated with immigrant status (chi squared=3.2, p<.07). Although in the overall sample 43% were alcoholic, 33% homeless, and 55% had a history of imprisonment or institutionalization, none of these known risk factors predicted PPD positivity in this sample. No PPD positive subjects manifested clinical signs or symptoms of TB (cough, fever, weight loss, hemoptysis, back pain). All PPD-positive subjects were referred to infection control services for sputum collection and initiation of medication, if indicated.

Conclusions: TB exposure rates are high in urban PES populations, and this study confirms the need for routine testing of patients (and staff) in such settings.

NR496 Wednesday, May 19, 12 noon-2:00 p.m.
Intelligence and Reading Ability of Patients at a Psychiatric Walk-In Service

Glenn W. Currier, M.D., Department of Psychiatry, University of Southern CA, 1937 Hospital Place, GH150, Los Angeles CA 90033; Robert Sitzman, Ph.D.

Summary:

Introduction: We compare IQ and reading ability of psychiatric outpatients with the reading difficulty levels of hospital documents.

Methods: A random sample of 154 native English-speaking outpatients received the Quick Test intelligence measure, and a random subset (n=53) also completed the WRAT 3 reading test. General and medication consent, patients' rights summary, firearms prohibition, and a pharmaceutical study consent form were analyzed to determine FleschKincaid Grade Level.

Results: The mean IQ of all participants was 79.7 (range 40-125). IQ did not vary significantly by gender, but subjects with psychotic disorders had lower scores (72.9, SD18.9) than did those with mood disorders (90.6, SD14.4) or other types of disorders (93.8, SD9.2) [F=7.44, df 49, p<.002]. Reading level was significantly correlated with IQ (r=.67, p<.001), but not with last grade completed in school. While 46.1% read at the high school level or above, 25% read at grades 6-8 and 28.9% read at grade 5 or lower. All documents analyzed required at least a twelfth grade reading level for comprehension.

Conclusions: Many psychiatric outpatients have low IQs as well as reading skills below those adequate to understand patient care and research documents.

NR497 Wednesday, May 19, 12 noon-2:00 p.m. Psychosocial Training in U.S. Internal Medicine and Family Practice Residency Training Programs

Elizabeth H. Gaufberg, M.D., Department of Psychiatry, Cambridge Hospital, 1493 Cambridge Street, Cambridge MA 02139; Robert C. Joseph, M.D., Richard J. Pels, M.D., Carol C. Nadelson, M.D., Dow Wieman, Ph.D., Aditi Mehta

Summary:

Most patients with psychiatric disorders are managed by their primary care physicians (PCP) rather than a mental health professional. Yet psychiatric disorders are under-diagnosed and poorly treated in the general medical sector. Unfortunately, little is known about the quantity or quality of psychosocial training received by future PCPs.

In September 1996 we surveyed the program directors of all 416 U.S. internal medicine (IM) and 455 family practice (FP) Residency Training Programs regarding the required psychosocial (PS) training they provide their residents. "Psychosocial training" was defined broadly as formal patient-based or didactic training in psychiatric, behavioral, or addictive problems, interviewing, and relevant social/ethical issues. Overall response rate = 61% (FP = 64%, IM = 58%). 99% of FP program directors and 64% of IM program directors reported having at least one required psychosocial training experience in their program. FP programs require 6.7 weeks of PS training in the three residency years, compared to 2.2 weeks for IM programs. 48% of FP programs identified psychologists as the discipline providing the most teaching (22% family physicians, 16% social workers, and 8% psychiatrists). 41% of IM programs identified internists, 36% psychiatrists, and 14% psychologists. Regarding specific PS experiences (e.g. mental health precepting, didactics, video review, block rotations), a greater percentage of FP programs provide each category of experience, and devote more curricular time, than do IM programs. The expected level of competency for PS topics (e.g. MSE, psychiatric diff. dx, psychopharm, addictions) is generally comparable between IM and FP programs, except for counseling for which FP programs expect greater competency. We will compare the # of grand rounds and didactics on PS topics (e.g. depression) vs. traditional "medical" topics (e.g. HTN), and we will review program director opinions on PS training.

Funding: Elizabeth Gaufberg, MD, Livingston Fellowship, Harvard Univ., Dept. of Psychiatry.

NR498 Wednesday, May 19, 12 noon-2:00 p.m. Initiating Paroxetine for Panic Disorder During Emergency Department Chest Pain Evaluations

Lawson R. Wulsin, M.D., Department of Psychiatry, University of Cincinnati, 231 Bethesda Avenue (ML 559), Cincinnati OH 45267-0559; Shelley Evans, M.Ed. Tiepu Liu, Ph.D., Naakesh A. Dewan, M.D., Alan Storrow, M.D., Catherine Hamilton, M.P.H., Theresa Shireman, Ph.D.

Summary:

Background: Panic disorder (PD) is common (25%-30%) in emergency department (ED) patients with chest pain; ED physicians rarely diagnose or treat PD. To examine the feasibility of diagnosing and initiating treatment for PD during ED chest pain evaluations, we conducted a feasibility trial of paroxetine initiation vs usual care (funded by Smith KlineBeecham).

Methods: All enrolled subjects completed a 6 hr ED chest pain evaluation plus the panic module of the PrimeMD. Subjects who screened positive for PD then were given the PD module of the Structured Clinical Interview for DSM-IV (SCID) and the Panic Disorder Severity Scale (PDSS) by the research psychiatrist. Confirmation of PD on the SCID led to randomization to paroxetine 20 mg/d or usual care, and a three month follow-up phone assessment.

Results: Of 116 enrolled subjects, 34 (29%) met criteria for PD. Composite mean item score on PDSS = 1.8 (95% CI 1.6-2.1), higher than the mean reported for the original PDSS sample. Preliminary three month PDSS scores suggest that the paroxetine group improved, while the usual care group remained distressed.

Conclusions: Panic disorder appears to be common and severe in this sample of chest pain patients. It is feasible to diagnose and initiate panic disorder treatment in this ED setting.

NR499 Wednesday, May 19, 12 noon-2:00 p.m. Police Response to Tarasoff Warning in South Carolina and Michigan

Lawrence A. Labbate, M.D., Department of Psychiatry, Medical University of SC, VA Med Ctr/109 Bee Street #116, Charleston SC 29401; Richard Balon, M.D., Michael G. Huber, M.D., Shari Brandt-Youtz, B.A., Rizwan M. Mufti, M.D., Jill Hayes, Ph.D.

Summary:

Objective: The author's goal was to determine the response by police in Michigan (MI) and South Carolina (SC) to Tarasoff warnings.

Method: We contacted urban and rural police stations in MI (n=50) and SC (n=54) and administered a questionnaire about knowledge, experience, and policies regarding Tarasoff warnings. Comparisons between states and between urban and rural police stations were made by use of chi-square analysis.

Results: Forty-five stations had been warned by therapists, with a mean frequency of 3.7 ± 8.4 (SD) times during the past year. Only three stations (3%) were familiar with the Tarasoff ruling. Twenty-four stations (24%) had a specific policy regarding therapist's warnings. Twenty-seven police stations would not warn a potential victim. MI stations were much more likely than SC stations to have experience with (65% vs. 27%, p=0.002) or policies regarding (37.5 vs. 11.5, p=0.0002) Tarasoff warnings. MI stations were more likely to notify (90% vs. 58%, p=0.0003) or monitor (73% vs. 21%, p=0.00001) potential victims.

Conclusion: Police have limited experience with Tarasoff warnings. Calling the police may not be the best way to protect potential victims from threatening patients.

NR500 Wednesday, May 19, 12 noon-2:00 p.m. Sexual Predator Records Review: Juveniles Characteristics

Geoffrey R. McKee, Ph.D., SC Department of Mental Health, PO Box 202, Columbia SC 29202; Stephen M. Soltys, M.D., Scott Wowra, B.A.

Summary:

Objective: To compare the demographic delinquency history, sex offense, and clinical characteristics of juvenile sex offenders referred (R) and not referred (NR) for sexual predator evaluation by a statutory interagency multidisciplinary (ME) case review committee.

Method: The current sample (N-25) comprises all juvenile sex offenders released from South Carolina confinement since June

6, 1998. To date, the MDT has referred six juveniles (24%) for comprehensive psychiatric evaluation. Data collection is ongoing.

Results: Despite small sample sizes, Group R juveniles were significantly less likely to have successfully completed institutional sex offender treatment (p.<.01) and more likely to have been victims of childhood sexual assault (p.<.02). No significant differences found in the number, age, or gender of victims, in the type of crime (e.g., vs. rape) or victim-offender relationship and age difference, nor in the juveniles' history of sexual or nonsexual adjudications. Initial trends suggested that Group R individuals may be slightly older at referral (p.=.11) and have higher IQs (p.=.10)

Conclusions: These data are congruent with prior research indicating that many sex offenders ware molested in childhood and that sex offender treatment may lessen juveniles' risk for sexual recidivism. Application of sexual predator statutes to children and adolescents may pose many serious issues including disclosure of off-record victims during treatment, lower evidentiary standards in family court, juveniles' incompetence to understand commitment proceedings, and indefinite civil commitment into adulthood for childhood acts.

NR501 Wednesday, May 19, 12 noon-2:00 p.m.
The Clinical Impact of Doing Time

Merrill R. Rotter, M.D., Bronx Psychiatric Center, 1500 Waters Place, Bronx NY 10461; Stefan Larkin, Ed.D., Michael Steinbacher, M.A., Jackie Massaro, C.S.W., Mitchell Schare, Ph.D.

Summary:

Introduction: An increasing number of individuals in the mental health treatment system have a history of criminal incarceration. They arrive in mental health treatment facilities with needs and expectations, behaviors and beliefs, different from those of persons without such experiences.

Methods: 30 patients with histories of correctional incarceration (identified by their respective RAP sheets) were compared to 15 patients without such history utilizing the SPECTRM Behavioral Observation Scale, a 61-item behavioral rating scale.

Results: 15 items were identified as significantly more prevelant among the patients with histories of correctional incarceration (p<.05). Of the 15, eight were measures of various types of intimidation behaviors, two were related to seeing the hospital as a lock-up, four were related to the prohibition against sharing information with staff, and one was related to medication noncompliance.

Conclusions: The 15 items identified were consistent with actions and attitudes often described as adaptation by inmate populations to the jail and prison culture. Actual violence, however, was not among the 15 differentiating items. In order to enhance treatment and maintain safety, it is important for providers to approach this population with cultural competence, i.e., an understanding of the culture of jail and prison and its impact on current behavior.

NR502 Wednesday, May 19, 12 noon-2:00 p.m.
The Mentally Ill Offender in the Civil Hospital: Distinguishing Features

Merrill R. Rotter, M.D., Bronx Psychiatric Center, 1500 Waters Place, Bronx NY 10461; Stefan Larkin, Ed.D., Michael Steinbacher, M.A., Jackie Massaro, C.S.W., Mitchell Schare, Ph.D.

Summary:

Introduction: An increasing number of individuals in the mental health treatment system have a history of criminal incarceration. Staff often respond to this population as alien and dangerous.

Methods: We performed a chart review of all admissions to Bronx Psychiatric Center during the first half of 1997 and compared patients with a history of correctional incarceration with those without with respect to age, gender, diagnosis, and untoward incidents.

Results: 111 patients were admitted during the study period. The 62 patients with a history of correctional incarceration were significantly more likely to be male but otherwise were not distinguishable on the basis of age, Axis I diagnosis, or the total number of untoward incidents, but the mean severity of assault incidents among patients with a history of correctional incarceration was significantly greater (p<.004). Gender played some role.

Conclusions: The prevalence data indicate a high percentage of new admissions to a state psychiatric center have had experience in prison and/or jail. They are clinically similar to the nonforensic population in important areas such as diagnosis. However, the incident data suggest that, however small, they may present some increased risk of injury to staff or other patients.

NR503 Wednesday, May 19, 12 noon-2:00 p.m.
Hired Guns and Whores: A Computer Case Law Survey

Douglas Mossman, M.D., Department of Psychiatry, Wright State University, PO Box 927, Dayton OH 45401

Summary:

Although testifying mental health professionals often are described as "hired guns," few scholars have systematically investigated how courts respond to the suggestion that psychiatric opinions are "for sale." This issue was studied through a computer search of appellate decisions that make, or refer to, derogatory statements about mental health experts. The search strategy, "(PROSTITUTE OR WHORE OR HIRED GUN) W/ 100 PSYCH!", yielded 566 cases; 45 (8.0%) cases contained comments about professionals' ethics. Twenty states accounted for the remarks, which increased in frequency over 1978-98 (r^2 =0.339, df=19, t=3.12,p=0-0056). Thirty-five opinions called or compared professionals to "hired guns"; five described testifying experts using the word "whore," and five cases used some variation on "prostitute." Most cases referred to psychiatrists (rather than psychologists); 26 cases mentioned specific clinicians. Sixty percent of the remarks occurred in appeals of criminal convictions and concerned psychiatric testimony at trial or before sentencing. Prosecutors were the most common sources of disparaging statements; appellate courts usually disapproved of their remarks but did not reverse convictions. The appellate decisions themselves were the second most frequent sources of derogatory remarks. These findings suggest that attorneys and judges often think mental health testimony is corrupt or meretricious.

NR504 Wednesday, May 19, 12 noon-2:00 p.m.
Court-Ordered Psychotropic Medications in Southern Illinois: Eight Years of Data

Jagannathan Srinivasaraghavan, M.D., Department of Psychiatry, Southern Illinois University, Choate Mental Health Center, Anna IL 62906; Nancy Watkins, B.S.

Summary:

Background: The Illinois Mental Health & Developmental Disabilities Code 2:107.1 allowing for judicial ordering of psychotropic medications to nonconsenting patients in non-emergency situations was enacted on August 13, 1991. Choate Mental Health Center, with about 100 adult psychiatric beds, serves almost all treatment refusers in the southern 28 counties of Illinois with a population of approximately 619,000.

Objective: To understand the number of cases filed, unique patients, physicians involved, and outcome in the last eight years in Southern Illinois.

Subjects: All the cases filed from Choate Mental Health Center in the Circuit Court of Union County from enactment of statute in 1991 until December 31, 1998.

Method: Collection of demographic data from hospital records of petitions submitted to the Circuit Court for favor of psychotropic medication.

Results: From 1991-1998 there were 0, 6, 26, 51, 28, 29, 43, and 38 petitions in each calendar year for a total of 221 cases in eight years. Of the 221 petitions, 42% were granted, 7% were denied, and 50% were either withdrawn or dismissed. Fifty-two percent were men and 79% white. There were 145 unique patients. Forty-one recidivists used this statute from 2-8 times, a mean of 2.8 times. There were 13 physicians involved and about 95% of cases were decided by one judge.

Conclusions: 1) Denial of petition for medication is much higher compared to Cook County (most populous county) of Illinois. 2) Twenty-eight percent of recidivists accounted for 53% of petitions.

NR505 Wednesday, May 19, 12 noon-2:00 p.m.
A Case Example Utilizing Practical Methods for Detecting Mendacity

Alan R. Hirsch, M.D., Smell & Taste Treatment Rsch, 845 N Michigan Ave, Ste 990W, Chicago IL 60611-2201; Charles J. Wolf, B.S.

Summary:

Objective: To demonstrate the use of objective signs of mendacity.

Methods: Sixty-four peer review articles and 20 books on mendacity were reviewed, from which 23 clinically practical signs of dissimulation were selected. To demonstrate the application of the above, President Clinton's Grand Jury Testimony of August 17, 1998, was analyzed. A segment lacking in veracity was compared with a control period during the same testimony. A fund raising speech to a sympathetic crowd served as another control. The frequencies of the above signs in the mendacious period as compared to the honest control were analyzed for statistical significance.

Results: During the mendacious epoch, our subject demonstrated marked increase in both frequency ($p<.0005$) and extent of signs of lying as compared to both controls. This increase is more marked for the external control (20/23), compared to the internal control (19/23). More than half of the signs display changes greater than 100% toward deception. Using both controls, 100% of verbal and speech indicators demonstrated marked changes consistent with deception.

Conclusion: This exercise demonstrates the utility of using formalized veracity measures in the videotaped and scripted interview situation. With practice, the same techniques can be used contemporaneously during an actual psychiatric interview.

NR506 Wednesday, May 19, 12 noon-2:00 p.m.
Comparison of Atypical Agents and Haloperidol in Nursing Home Patients

I. Barton Frenchman, R.Ph., Pharmacy Consulting, 1238 Stuyvesant Avenue, Union NJ 07083; Angela Capo, R.N., Maria Pieniro, R.N., Sandy Stenstrom, R.N., Antonio Onday, R.N.

Summary:

Objective: Charts of patients in nursing homes were reviewed to determine the efficacy and safety of atypical agents and a conventional agent in the treatment of behavioral disturbances.

Methods: Patients treated with risperidone, olanzapine, quetiapine, or haloperidol were identified in charts of 155 patients in four nursing homes. Target behavioral symptoms for treatment included hitting, screaming, paranoia, delusions, and hallucinations.

Results: Of the 155 patients identified, 97 received risperidone (mean dose, 0.5-2.5 mg/d), 29 haloperidol (1-9 mg/d), and 24 olanzapine (6.4-20 mg/d). Only five patients received quetiapine and their results are not reported. Diagnoses included schizophrenia in 66 patients, various types of dementia in 50, and bipolar disorder in eight. Among the patients with schizophrenia, overall behavioral improvement was seen in 61% of patients treated with risperidone, 0% of patients treated with haloperidol, and 12% of patients treated with olanzapine; in patients with dementia, the respective percentages were 75%, 57%, and 22%. Of the 28 patients with other psychiatric disorders, 20 received risperidone; of these, improvement was seen in 60%. The most common adverse event, extrapyramidal symptoms, was seen in 12% of the risperidone patients, 27% of haloperidol patients, and 25% of olanzapine patients.

Conclusions: Low doses of risperidone were more effective and better tolerated in elderly nursing home patients than haloperidol or olanzapine.

NR507 Wednesday, May 19, 12 noon-2:00 p.m.
Acute ECT Response: Findings from the Consortium for Research in ECT Trial

Charles H. Kellner, M.D., Department of Psychiatry, Medical University of SC, 67 President St/PO Box 250861, Charleston SC 29425; Rebecca Knapp, Ph.D., Hilary Bernstein, L.S.W., Teresa A. Rummans, M.D., Mustafa M. Husain, M.D., Georgios Petrides, M.D., Mark D. Beale, M.D., Wenle Zhao, M.S., A. John Rush, M.D., Max Fink, M.D.

Summary:

In an NIMH-funded, multicenter, randomized trial designed to evaluate the relative efficacy of continuation ECT vs. continuation pharmacotherapy (lithium plus nortriptyline), 144 patients (average age = 56 years) with primary major depressive disorder (33% psychotic) received an index course of bilateral, moderately suprathreshold ECT; of these, 128 completed the index course of ECT as per protocol (5 withdrew consent, 5 had adverse effects, 6 had incomplete data). HAM-D (24-item) ratings were obtained 3 times per week. 84% (107/128) of patients who completed the index ECT course met strict responder criteria HAM-D$\leq$10 at 2 consecutive ratings). Considering all 16 withdrawals/noncompleters as nonresponders, 74% (107/144) of patients were responders. The baseline group HAM-D for completers was 35.5 (psychotic: 38.5±17.6; nonpsychatic: 33.9±7.1, $p<0.01$): the endpoint HAM-D was 8.0 (psychotic: 7.0±5.7, nonpsychotic 8.4±7.2). Psychotic patients had a greater decrease in HAM-D scores from baseline to endpoint

(meanΔ=31.6±10.0) than nonpsychotic (meanΔ=25.5±9.9), P<0.01. The average course length was ≠ 8 ECT, with no difference between psychotic and nonpsychotic patients. ECT rapidly and thoroughly relieves depressive symptomatology in a severely ill cohort of unipolar patients. Psychosis, a marker of illness severity, is associated with a particularly robust response to ECT.

NR508 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Association Between Geographic Origin and Health Services Utilization in a Sample from Intensive Outpatient Treatment

Joseph A. Flaherty, M.D., Department of Psychiatry, University of Illinois, 912 South Wood Street, MC 913, Chicago IL 60612; Thomas M. Brady, M.P.H., Bernard H. Baum, Ph.D.

Summary:

The purpose of this analysis was to test the hypothesis that geographic origin was a significant barrier to utilization of outpatient substance abuse treatment. A common measure for addiction treatment outcome is length of stay in treatment, or retention. Previous research has demonstrated that retention is inversely related to drug use, criminality, and homelessness.

Methods: Utilization records of 609 Medicaid outpatients seeking care at one treatment center were analyzed; data were from June 1, 1995 to April 30th, 1998. The geographic unit of analysis was the patient's zip code, which was linked to patient utilization and demographic files. The primary catchment area was defined by the zip code of the treatment center and all contiguous zip codes. The primary contrast was the utilization experience of patients in our secondary catchment area, which were all other outpatients. Student t-tests were utilized using the summation of group therapy visits as retention, the outcome variable; logistic regression, Kaplan-Meier and Cox proportional-hazards procedures characterized the association between geographic origin and retention, while adjusting for other risk factors of dropping out of treatment.

Results: 24% of patients in our secondary catchment area completed Intensive Outpatient Primary Care (IOTPC), compared with 33.6% of our patients from our primary catchment area. Patients in our secondary service area were statistically more likely to drop out of treatment prior to completion of IOTPC (prevalence odds ratio 1.6, 95% C.I. {1.10, 2.35}, chi sq. 6.115) and to not remain in treatment as long as patients from our primary service area (t-test for equality of means t=2.34, p=.02). However, the effects of geographic origin diminished in the Kaplan-Meier procedures and full Cox regression model with age, calendar time of entry (before or after welfare reform, December 31, 1996), and the presence of a psychiatric diagnosis acting as persistent confounders. The longer patients remained in treatment, the less important geographic origin became in the multivariate model.

Conclusion: Location and travel time may be service barriers and important risk factors for poor retention during the initial stages of outpatient substance abuse treatment. Treatment programs may target patient engagement activities for those individuals with long commutes or refer them to programs closer to home. GIS applications combined with epidemiologic methods offer treatment programs opportunities to gain insight into utilization data.

NR509 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Welfare Reform Policies and Substance Abuse Treatment: One Program's Experience

Joseph A. Flaherty, M.D., Department of Psychiatry, University of Illinois, 912 South Wood Street, MC 913, Chicago IL 60612; Thomas M. Brady, M.P.H., Bernard H. Baum, Ph.D., Dorothy Thomas, C.A.D.C.

Summary:

Background: Major changes in welfare policy at the end of 1996 altered Medicaid eligibility and shaped the utilization of substance abuse treatment for public aid patients. Welfare reform, in the form of the Personal Responsibility and Work Opportunity Reconciliation Act (PL 104-193) and the Contract with America Advancement Act (PL 104-121), ended Medicaid benefits for individuals whose substance abuse problem was the primary reason for their eligibility. We used retention or length of stay in treatment as the outcome variable to discern the impact of recent Medicaid policy. Research has demonstrated that retention is inversely related to drug use, unemployment, criminality, and homelessness.

Methods: Utilization records of 632 Medicaid outpatients seeking care at one treatment center were analyzed; comparisons were made between 276 patients who entered after January 1997 and 356 patients who enrolled prior to that date. Data were from June 1, 1995 to April 30, 1998. Multivariate procedures were utilized using the summation of group therapy visits as retention; logistic regression and survival procedures characterized the association between time of recruitment, before or after January 1997, and retention, while adjusting for other possible risk factors of dropping out of treatment: age, race, sex and psychiatric diagnosis.

Findings: Patients enrolled after welfare reform were younger and more likely to have been female. There were profound differences in outpatient utilization before and after the policy was implemented; 37% of patients completed Intensive Outpatient Treatment-Primary Care (IOTPC) prior to January 1997, compared with 14.5% who enrolled after that date. Patients who entered treatment in 1997 and 1998 were more than three times as likely to drop out of treatment prior to completion of IOTPC than 1995 and 1996 patients (odds ratio 3.47, 95% C.I. 12.34, 5.181, Chi-Sq. 40.037).

Conclusion: The data suggest that changes in Medicaid eligibility for addiction treatment dramatically altered the utilization experiences of adult outpatients. However, with women entering treatment programs in greater relative frequency, and other patient groups such as the dually diagnosed not losing their Medicaid eligibility, opportunities remain for publicly financed addiction programs in the era of welfare reform. Programs should continue to focus attention to mechanisms for increasing retention and target effective ways of engaging patients in treatment.

Funding source: NIMH grant 54212 Research Infrastructure Support Grant.

NR510 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Effect of Comorbid Anxiety on Depression Management in Current Psychiatric Practice

Bradley N. Gaynes, M.D., Department of Psychiatry, University of North Carolina, CB#7160, Chapel Hill NC 27599; Kathryn M. Magruder, Ph.D., Harold Alan Pincus, M.D., Terri L. Tanielian, M.A., Deborah A. Zarin, M.D., Ivan D. Montoya, M.D.

Summary:

Objective: Anxiety disorders commonly co-occur with major depression, but information guiding comorbid management is limited. We examined whether coexisting anxiety disorders

increased the complexity of depression management in current psychiatric practice, as measured by number and type of psychotropic medications prescribed.

Method: We identified patients with major depression from the 1997 APA Practice Research Network, a cross-sectional survey providing a nationally representative sample of psychiatric patients. Logistic regression was used to control for demographic, clinical, and payor variables.

Results: Of 434 patients with depression, 110 (25%) had coexisting anxiety. Panic disorder (n=33), post-traumatic stress disorder (n=28), and generalized anxiety disorder (n=21) were most prevalent. Patients with coexisting anxiety were more likely to receive three or more psychotropics (38% versus 27% in those without anxiety; $OR_{adjusted}$= 1.7, 95% CI 1.1-2.9). Comorbid patients were also more likely to receive psychotropics from multiple medication groups (66% versus 44%; OR_{adj}=2.8, 95%CI 1.7-4.6). Anxiety subtypes substantially influenced the number and type of psychotropics prescribed.

Conclusions: The common coexistence of anxiety disorders in patients with major depression is associated with greater pharmacologic complexity, suggesting a greater clinical challenge. Intervention trials of depression must include patients with coexisting anxiety to identify effective management strategies for this frequent comorbidity.

Funded by a grant from the APA/van Ameringen Health Services Research Scholars Program.

NR511 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Impact of Depressive Symptoms on Health Status in Patients with Chronic Obstructive Pulmonary Disease

Bradford L. Felker, M.D., Department of Psychiatry, University of Washington, 4209 85th Avenue SE, Mercer Island WA 98040; Jennifer Rasmussan, M.P.H., Mary B. McDonnell, M.S., Stephan D. Fihn, M.D., Susan Hedrick, Ph.D., Wayne J. Katon, M.D.

Summary:

Objective: This study will evaluate the impact depressive symptoms have on general and disease-specific health status measures in patients who suffer from COPD.

Method: This study is a cross-sectional secondary data analysis of the Veteran Affairs Ambulatory Care Quality Improvement Project (ACQUIP) patients. Those patients who were determined to have a history of COPD (n=3,164) were assessed for depressive symptoms (Mental Health Inventory-5 score > 17, n=1,033, and or Symptom Checklist-20 > 1.75, n=726). Those COPD patients with depressive symptoms were compared with those patients without depressive symptoms with regard to the Medical Outcome Study SF-36 (SF-36, general health status measure) and the Seattle Obstructive Lung Questionnaire (SOLQ, disease-specific health status measure).

Results: For patients with depressive symptoms, the mean differences for SF-36 subscale scores ranged from 11.5 to 38.0 points lower than those without depressive symptoms. The mean differences for the SOLQ revealed similar results. Patients with depressive symptoms were younger, less educated, current smokers, and had more comorbid medical conditions.

Conclusions: COPD patients with depressive symptoms reported much lower functioning and health status when compared with those patients without depressive symptoms. This information identifies a target population for further evaluation and future interventions.

NR512 Wednesday, May 19, 3:00 p.m.-5:00 P.M. Assessing the Referral Interface Between Psychiatry and Primary Care

Terri L. Tanielian, M.A., Office of Research, American Psychiatric Assoc., 1400 K Street, NW, Washington DC 20005; Harold Alan Pincus, M.D., Eve M. Kupersanin, B.A., Allen J. Dietrich, M.D., John A. Williams, M.D., Thomas E. Oxman, M.D., Paul Nutting, M.D.

Summary:

Purpose: To better understand the nature of the mental health referral process through characterizing the current communication and referral interface between psychiatry and primary care.

Methods: The American Psychiatric Association Practice Research Network (PRN) developed a two-phase study to examine the current referral and communication process between primary care and psychiatry. Using a 10-item mail survey, Phase I gathered data from psychiatrists regarding the frequency of referrals from primary care and the nature and frequency of and satisfaction with their communication between primary care physicians.

Results: Over 80% of PRN members completed the Phase I survey. Preliminary analysis of the Phase I data (n=231 psychiatrists) shows that 46% of psychiatrists indicated that the overall quality of their interactions with non-psychiatric physicians was fair or poor. 35% indicated that they actively seek referrals from non-psychiatric physicians. With regard to the type of information communicated to psychiatrists by non-psychiatric physicians 48.3% of indicated that they often or always receive the information regarding the reason for the referral, However, 38.6% of psychiatrists indicated they almost never or never receive the patient's treatment history. 78% of psychiatrists reported that they often or always provide diagnostic information and treatment information regarding the patient back to the referring non-psychiatric physician, but 26% of psychiatrists report confidentiality concerns often or sometimes limit them from sharing this information.

Conclusions: Results from this survey will be used to help build a conceptual framework of the various domains and aspects of the referrals for mental health patients. Through collaboration with primary care and psychiatric researchers, this initiative will develop a multi-disciplinary project to implement and evaluate an intervention based on this framework and aimed at improving the referral process and enhancing the communication interface between psychiatry and primary care.

The PRN receives funding support from the MacArthur Foundation, CMHS, NIDA, CSAT and the APA.

NR513 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Characteristics of Referrals to Psychiatrists from Non-Psychiatric Physicians

Terri L. Tanielian, M.A., Office of Research, American Psychiatric Assoc., 1400 K Street, NW, Washington DC 20005; Harold Alan Pincus, M.D., Heather L. Cohen, B.A.

Summary:

Purpose: To better understand the attributes of the mental health referral process through characterizing the current communication and referral interface between psychiatry and primary care by focusing on the specific referral process for patients referred to psychiatrists by nonpsychiatric physicians.

Methods: The American Psychiatric Association Practice Research Network (PRN) developed a two-phase study in order

to research the current referral and communication process between primary care and psychiatry. Phase II of the study collected patient-level data on up to three new outpatients per psychiatrist to examine the methods of the referral process and assess the types and frequency of as well as satisfaction with communication to and from primary care physicians. Phase II consisted of a 34-item paper/pencil survey in which psychiatrists collected data regarding the patient's demographic, clinical, treatment, and system/setting characteristics as well as information about referral.

Results: 76% of PRN members completed the Phase II survey, yielding detailed data on 175 patients referred by a nonpsychiatric physician. Over half (55.2%) of patients were female; 36.0% of patients were referred directly by a general internist and 32.0% from a family practitioner; 62.1% of patients were seen by the psychiatrist within 10 days of the appointment request. The most common reason for the patients referral was for the provision of psychiatric treatment (37.8% of patients), 23.8% were referred for advice on diagnosis and treatment and an equal proportion (23.8%) were referred for the provision of psychopharmacologic management/treatment. Three-fourths (77.8%) of patients were referred with the expectation that the psychiatrist would assume responsibility for the ongoing management of the patient's psychiatric condition. Psychiatrists prescribed medications to 77.1% of the patients. In addition, 68.5% of patients were scheduled to return to the psychiatrist at a specific time and 16.5% were to return to the referring physician. A little more than half of the patients (53.7%) had some form of managed health care plan. Three-fourths (74.4%) utilized their health plan to pay for all or part of the psychiatrists' services.

Conclusions: Understanding why patients are referred as well as the expectations of referrals from nonpsychiatric physicians can help inform methods and strategies to improve the communication interface between primary care and psychiatry.

The PRN receives funding support from the MacArthur foundation, CMHS, NIDA, CSAT and the APA.

NR514 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Barriers to Treatment in Social Anxiety

Mark Olfson, M.D., Department of Psychiatry, Columbia University, 1051 Riverside Drive, New York NY 10032; Mary T. Guardino

Summary:

Background: Previous epidemiological and clinical research indicates that social phobia and social anxiety syndromes are prevalent, impairing, and often untreated. However, very little is known concerning the patient and clinical barriers that prevent individuals with these conditions from receiving mental health treatment.

Methods: Data were drawn from the 1996 National Anxiety Disorders Screening Day project (N= 15,606). Participants with and without symptoms of social anxiety are compared with respect to sociodemographic characteristics, psychiatric symptoms, functional impairment, and barriers to treatment. Subgroup analyses examine referral for treatment of social phobia, follow-up with these referrals, and treatment of social phobia in the community.

Results: Social anxiety was directly related to an increased risk of unemployment ($p<.0001$), lower educational achievement ($p<.0001$), divorced or separated marital status ($p<.0001$), social isolation ($p<.0001$), functional impairment ($p<.0001$), and suicidal ideation ($p<.0001$). Common and distinguishing barriers to mental health treatment included a fear of what others might think ($p<.0001$), financial considerations ($p<.0001$), and lack of insurance coverage ($p<.0001$). A minority (39%) of participants with social anxiety were specifically referred for evaluation of social phobia. Of those who were referred, approximately one-half (54%) completed the referral. Of those who completed the referral, only about one in five were treated for social phobia. Participant characteristics associated with detection, referral, and treatment of social anxiety will be presented.

Conclusions: This study confirms earlier research that social anxiety is impairing, but often untreated. It further suggests that social anxiety itself commonly interferes with help seeking and that mental health care professionals frequently fail to detect and treat symptoms of social anxiety.

NR515 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Annual Health Care Expenditures and Compliance with Antidepressant Treatment in a Managed Care Organization

Andrew M. Baker, M.P.A., Outcomes, Pfizer, Inc., 235 East 42nd Street, New York NY 10017; James M. Russell, M.D., Amy N. Grudzinski, Pharm.D., Salvatore V. Colucci, M.S.

Summary:

Introduction: Treatment failure in individuals with depression due to poor compliance may increase health care costs by increasing outpatient visits and hospital admissions (Thompson et al., 1996). Therefore, treating depression with an antidepressant that increases compliance may lower overall medical costs.

Objective: To assess whether compliance with SSRIs is higher than with TCAs and atypical/heterocyclic antidepressants, and if improved compliance reduces health care costs.

Methods: 1994-96 claims data from a large managed care organization (MCO) in the Southwestern U.S. were used to identify patients diagnosed with a depressive disorder who began treatment with an SSRI, TCA, or atypical/heterocyclic antidepressant. Treatment duration, non-depression-related medical costs, and total health care costs by drug class and AHCPR compliance category were examined during the subsequent 12-month period.

Results: Depressed patients prescribed SSRIs were more likely to be treated in accordance with AHCPR treatment duration guidelines (61% $\geq$ 150 days; $p<0.001$) and had lower non-depression-related medical costs ($p<0.001$). Increased treatment duration with SSRIs but not TCAs or atypicals was associated with lower nondepression-related medical expenditures ($p=0.039$ for 1Rx vs. $\geq$ 150 days). Inpatients treated in accordance with AHCPR treatment duration guidelines, total annual health care costs were lower for patients treated with SSRIs than for patients treated with atypical antidepressants ($p= 0.031$) and comparable to those of patients treated with TCAs ($p= 0.481$).

Conclusions: Total health care costs were lowest in SSRI treated patients. Non-depression-related costs were lowest in SSRI treated patients and these costs declined as compliance improved.

Supported by an unrestricted grant from Pfizer, Inc.

NR516 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Understanding Primary Care Patient Preferences for Depression Treatment

Megan Dwight-Johnson, M.D., Department of Psychiatry, University of Southern CA, 10920 Wilshire Blvd, Ste 300, Los

Angeles CA 90024; Catherine D. Sherboume, Ph.D., Tyrone L. Harvey, M.A., Kenneth B. Wells, M.D.

Summary:

Objective: To understand treatment preferences for depression among depressed primary care adult outpatients in managed care practices.

Method: This study uses baseline data on 1356 depressed patients who were enrolled in Partners in Care, a quality improvement intervention study to improve care for depression in managed primary care. Patients were surveyed regarding preferences for treatment, demographics, clinical and insurance characteristics, knowledge and attitudes. Results will be analyzed with bivariate analyses (chi-square for binomial variables, t-tests for continuous variables) and logistic regression models to examine the relationships between predictors and treatment preferences. Data are weighted for the probability of enrollment to the full eligible sample of 3699 (identified through consecutive screening of over 27,000 practice visitors).

Results: Twenty seven percent (N=366) of patients preferred antidepressant medication, 30.5% (N=414) preferred individual counseling, 25.8% (N=350) preferred group counseling, and 16.7% (N=226) preferred "wait and see". We plan to present multivariate models to determine significant predictors of these preferences after controlling for potentially confounding variables.

Conclusions: This is the first large multi-center study to examine primary care patient preferences for treatment of depression. Understanding patient preferences may help organizations and health care providers apportion scarce health care funds towards treatments that are acceptable to patients and best meet their needs.

NR517 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Changes in Mood and Quality of Life During Sertraline Treatment of Depression in Patients with Type 2 Diabetes

Patrick J. Lustman, Ph.D., Department of Psychiatry, Washington University, 4940 Childrens Place/Box 8134, St. Louis MO 63110; Kenneth E. Freedland, Ph.D., Linda S. Griffith, M.S.W., Candace R. Miller, M.A., Richard L. O'Sullivan, M.D., Eugene H. Rubin, M.D., Ray E. Clouse, M.D.

Summary:

Objective: To determine whether treatment of depression in diabetic patients is associated with improvement in depressive disorder health-related quality of life (HQOL).

Method: 44 patients with type-2 diabetes and major depressive disorder were treated with sertraline up to a maximum daily dose of 100 mg for one year. At baseline and 12 months, the Beck Depression Inventory (BDI) was used to measure depression severity, and the Rand Medical Outcomes Study Short Form (SF-36) was used to assess HQOL. Higher scores on the SF-36 reflect better functioning. HQOL was also measured in a nondepressed comparison group (n=44) matched to the depressed group for age, race, duration of diabetes, type of diabetes treatment, and other comorbid medical illnesses.

Results: There were no significant differences between the groups on any matching variables. There was a statistically and clinically significant decrease in BDI scores from baseline (24.1 ± 9.1) to 12 months (8.8 ± 7.3, $p<0.001$). There were statistically significant changes during treatment on three SF-36 subscales (*$p < 0.05$,Table). Among the 15 patients in remission (BDI≤9) at 12 months, SF-36 scores were further improved and statistically similar to the nondepressed controls.

Conclusion: Improvement in depression during sertraline treatment is associated with significant improvement in HQOL. Remission of depression is associated with HQOL approximating normal.

	Depressed Group			Controls
	Baseline	1 yr	Remitted subset	
Bodily Pain	6.3	7.4	8.2	9.1
Gen Hlth	15.2	16.1	16.4	17.5
Gen Mental Hlth	15.5	22.3*	24.5	25.7
Physical Function	20.3	21.4	22.4	25.3
Role Limits/Emotional	3.8	5.1*	5.5	5.7
Role Limits/Physical	5.3	5.9	6.5	7.0
Social Function	6.0	7.9	8.4	9.6
Vitality	8.6	12.8*	13.6	16.8

NR518 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Revolving Door Phenomenon in a Public Psychiatric Hospital in Mexico City

Francisco Paez, M.D., Clinical Research, Institute of Mexican Psych, Calzada Mexico Xochimilco 101, Mexico City 14370, Mexico; Vicky Perez, B.A., Ileana Lopez, Rogelio Apiquian, M.D., Humberto Nicolini, Ph.D.

Summary:

"Revolving door" (RD) patients, defined as more than 4 hospital admissions in a 5 year period, represent a major administrative and clinical problem in psychiatric facilities.

Objective: The aim or this report was to determine the frequency of the RD phenomenon and its clinical and demographic factors associated.

Method: In a retrospective cohort, 708 patient records were evaluated from the "Fray Bernardino Alvarez" Psychiatric Hospital in Mexico City, a major 600 bed facility. Patients admitted in 1990 for the first time were included, and follow-up notes were reviewed to assess clinical and demographic variables as well as readmissions. Four or more readmissions in a 5 year period were considered as RD.

Results: 104 (14.7%) patients were assigned as RD subjects. Non-affective psychosis (26.7%) predominated among RD patients followed by affective disorders (18.1%), organic mental disorders (18.1%), organic mental disorders (15%), dementia (5.5%) and drug dependence (1.4%).

Conclusion: The frequency obtained is similar to reports in the international literature. Diagnosis distribution varies according to the characteristics of the hospital studied.

NR519 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Homelessness and Psychiatric Hospitalization

Lawrence Appleby, Ph.D.,J.D., Department of Psychiatry, University of Illinois, 1601 West Taylor, Chicago IL 60612; Daniel J. Luchins, M.D., Nancy B. Slagg, Ph.D., Doug Burman, Ph.D., Prakash N. Desal, M.D.

Summary:

Objective: This study compared patterns of homelessness in public psychiatric patients over a 15-year period.

Method: Admission flow data were retrieved from statewide reports and public documents. Patient information was collected from hospital records and central patient computer files for undomiciled admissions (n = 265) to a Chicago area state facility during FY '96.

Results: Paralleling national trends, the number of psychiatric beds and admissions, including undomiciled, markedly declines in Chicago area state hospitals between 1980 and 1995. Undomiciled admission, however, were relatively stable the last few years, constituting a greater percent of fewer total admissions, 6.3% in 1990 and 12.9% in 1995. The homeless comprised 15% of the admissions to the largest state facility in 1980 and nearly 20% in 1996. First admission homeless were more frequently immigrants or born out-of-state than previously hospitalized homeless. Furthermore, in sharp contrast to significant referral pattern variations in 1980, about 80% of all admission presentations were prescreened in 1996.

Conclusions: Community prescreening is effectively redirecting domiciled patients to private hospitals. Thus, current state hospital admissions are composed of more isolated individuals with fewer social supports and no housing resources. In addition, homeless immigrants add special financial/discharge planning issues and multicultural problems to be addressed.

NR520 Wednesday, May 19. 3:00 p.m.-5:00 p.m. Dissemination of Family Psychoeducation: The Importance of Consensus Building

Lisa B. Dixon, M.D., Department of Psychiatry, University of Maryland, 701 West Pratt Street, Rm 476, Baltimore MD 21201; William R. McFarlane, M.D., Helaine Hornby, M.A., Scot W. McNary, M.A.

Summary:

Introduction: Successful translation of knowledge from research to the clinical setting is a critical challenge posed by the implementation of practice guidelines and best practices algorithms. This study identifies obstacles to the implementation of a family psychoeducational intervention (FPI) perceived by two groups of providers who received the same FPI training from two different states. Each state had a different FPI dissemination strategy.

Methods: Participants of intensive FPI training completed a survey after two training days. While both states A (N=156) and B) (N=124) had senior mental health authority leadership support for the program, State B had a preliminary consensus building phase with clinician administrator, patient/consumer and family member involvement.

Results: Participants in State B were significantly more likely to be at the training voluntarily and were more likely to be clinicians. While participants at both States rated the FPI as consistent with their philosophy and methods, State B rated the FPI as significantly moreso. The total group rated resource issues as the most import obstacles. However, State B participants rated 10/25 obstacles as significantly less problematic than State A participants. State B participants also reported that they felt they were significantly more likely to implement the intervention. The relationship between ratings and actual implementation in States A and B will be available.

Conclusion: This study supports importance of grass roots consensus building, especially as it involves clinical administrators and supervisors, in implementing innovative, state of the art clinical programming.

NR521 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Analysis of Risperidone Costs in the Veterans' Administration

Enrico G. Camara, M.D., The Analytica GP, 475 Park Avenue S, 17th Floor, New York NY 10016; James T. Miyashiro, M.A., Leonard K.M. Wong, Amy Grogg, Pharm.D., Steven R. Arikian, M.D., Ron Corey, Ph.D.

Summary:

Method: Chronic schizophrenia patients treated with RIS in a Veterans' Administration hospital were identified through pharmacy records. Data were collected for 12 months before and after initiation of RIS therapy for haloperidol patients (HAL). Patients were randomly selected as a case-controlled cohort. VA hospital costs were used for inpatients and pharmaceuticals while HCFA costs were used for outpatients. Average overall cost per patient before and after initiation of RIS therapy was compared.

Results: 41 patients were identified for this study: 41% demonstrated cost increases and 59% cost reductions after switching to RIS. Drug costs were higher with RIS ($98,114 versus $8,644 $p<0.05$) as were outpatient care costs ($107,800 versus $72,700, $p<0.05$). However, total costs were reduced from $532,751 to $465,882 yielding a net saving of $66,869 (12.6%) due to significantly lower costs for inpatient care ($289,916 versus $128,785), as well as ER visits ($P<0.05$) and decreased workload (p=NS).

Conclusions: Despite its higher acquisition cost, RIS use was associated with decreased hospital admissions and average length of stay thus yielding reduced overall per patient costs. These conclusions suggest that VA clinicians now have evidence that risperidone can substantially benefit patients and healthcare budgets.

NR522 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Validity of the 1990 APA ECT Task Force Recommendations

James R. Westphal, M.D., Department of Psychiatry, LSUMC-Shreveport, PO Box 33932, Shreveport LA 71130

Summary:

Objective: To assess the validity of the 1990 APA ECT Task Force Recommendations.

Background: The publication of over 1800 practice guidelines by 1997 in the United States represents a large expenditure of health care resources and professional time. Accumulating evidence demonstrates that valid guidelines appropriately implemented change clinical practice and improve patient outcomes. Conversely, deficient guidelines can waste health care resources.

Method: The 1990 APA ECT Task Force Recommendations were assessed using the University of Leeds criteria for clinical guideline validity. The three factors that have been associated with valid clinical guidelines are (1) the process and composition of the guideline development panel (2) the process of identification and synthesis of evidence and (3) the methodology of guideline construction.

Results: The 1990 ECT Task Force was multidisciplinary in composition fulfilling the first requirement. Although voluminous literature citations are present in the Task Force report, systemic literature review techniques were not documented in the recommendations. The report differentiated the strength of a recommendation by the use of modifiers such as, should or encouraged. However, the recommendations were not explicitly linked with evidence.

Conclusion: The addition of systemic literature review techniques, explicit linkage of evidence to recommendations and systematic strength of recommendation labeling would improve the validity of the APA ECT recommendations.

NR523 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Making Valid Inferences from Claims Data: A Comparison of SSRI Treatment Costs

James M. Russell, M.D., Department of Psychiatry, Univ of Texas Med Branch, 404 University/Rt 0197, Galveston TX 77555-0428; Ernst R. Berndt, Ph.D., Robert J. Miceli, Ph.D., Salvatore V. Colucci, M.S., Amy N. Grudzinski, Pharm.D.

Summary:

Introduction: Several previous analyses have compared SSRIs when sertraline and paroxetine were unavailable or newly approved agents, likely resulting in biased treatment cost estimates. We employ more recent (1995-96) data when all three SSRIs were well established and examine the sensitivity of findings to alternative treatments of selectivity or non-random sampling.

Method: Following a six-month antidepressant-medication-free period, claims records from a national database (HCIA) of 1663 patients diagnosed with depression who began treatment with an SSRI in 1995 met inclusion criteria. During the subsequent 12 months, total and depression-related healthcare costs were examined using bivariate, multivariate, and sample selectivity to adjust for observed and unobserved selection biases.

Results: Six hundred sixty-two (662) fluoxetine (F), 402 paroxetine (P), and 599 sertraline (S) patients met inclusion criteria. Age, gender, and treatment course characteristics were similar, except the higher treatment discontinuation rate (27.1%; $p<.001$) and shorter treatment duration (median= 90 days; $p<0.001$) for paroxetine. A high percentage (43.2%) of patients in all three cohorts were titrated, resulting in a significantly higher proportion of fluoxetine patients taking two or more capsules per day (F=28.0%, P=11. 1%, S=15.4%; $p<0.001$). Consequently, mean antidepressant and associated depression related-treatment costs were significantly higher for fluoxetine ($1,473 versus $991 and $1,053 for paroxetine and sertraline, respectively; $p<0.001$). The fluoxetine cohort did not have lower total healthcare costs to offset the higher pharmaceutical acquisition costs. Conclusions from median, multivariate, and selectivity analyses were robust to these findings.

Conclusion: When fluoxetine, paroxetine, and sertraline were well-established agents, multivariate and sample selectivity analyses revealed similar and consistent results. Fluoxetine-treated patients, as a result of the higher proportion of patients taking two or more capsules per day, have significantly higher pharmaceutical acquisition costs which result in higher total depression-related healthcare costs.

NR524 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Children in Foster Care: Access to Care

Bonnie T. Zima, M.D., Department of Psychiatry, UCLA-NPI, 10920 Wilshire Blvd, #300, Los Angeles CA 90024; Regina Bussing, M.D., Xiaowei Yang, Ph.D., Thomas R. Belin, Ph.D., Madeleine Zwart, B.A.

Summary:

Objective: To provide a preliminary description of the help-seeking steps and service use patterns among school-aged children in foster care, and to examine how these indices of access are moderated by sociodemographic, facilitating, and child disorder characteristics.

Methods: Two home interviews of the foster parent and child and a telephone teacher interview were conducted, using a sample of 302 randomly selected children (aged 6-12 years) placed in foster care from three county service areas.

Results: More than two-thirds (70%) of the children with ADHD and 52% of those with other psychiatric disorders had used a specialty mental health service at least one time in the past year. Older children with ADHD ($p=.03$) were more likely to receive specialty mental health service uses; and among those with other psychiatric disorders, the level of monthly benefits ($p=.03$) and impairment ($p=.02$) were related to use of such services in the past year.

Conclusions: The level of unmet need for services among children in foster care was considerably lower than that reported in general child populations. Facilitators such caseworker visits and placement history variables were not related to help-seeking steps and service use.

NR525 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Beta-Amyloid, Oxidative Stress and Alzheimer's Disease

Anne C. Andorn, M.D., Department of Psychiatry, UNT Health Science Center, 3500 Camp Bowie, Ft. Worth TX 76107

Summary:

Alzheimer's disease (AD) is characterized by the deposition of β amyloid peptides (Aβ peptides) in discrete regions of the brain. Other stigmata of AD include markers of oxidative stress. We have been testing the hypothesis that the Aβ peptides and other fragments of their precursor protein β amyloid precursor protein (βAPP) are antioxidants, perhaps explaining their prevalence in a disease known to have markers of oxidative stress. We have found that several fragments of βAPP, including the Aβ peptides, inhibit ascorbate-stimulated lipid peroxidation (ASLP) in prefrontal and parietal cortical membrane fragment preparations (MFP) derived from non-AD human brain with $-pIC_{50}$ ranging from 6.7 ± 0.56 to 3.2 ± 2.3 ($N \geq 6$). This inhibitory capacity is lost when MFP from AD brain are used. This suggests that either the pro-oxidant capacity of the AD brain is increased or that the presence of the pathological Aβ deposits in AD prevent the antioxidant effects of the Aβ peptides.

Intriguingly, some fragments of βAPP, especially from the Kunitz protease inihibitor-like portion of βAPP are pro-oxidant, increasing ASLP to 500% (N=3) suggesting a pathogenic role for βAPP. Together these data suggest that βAPP is a complex cellular redox molecule and that AD may be a disease due to pathological redox mechanisms.

This work was supported, in part, by the Vandeventer Foundation of the St. Louis VAMC and the Department of Veterans Affairs.

NR526 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Primary Versus Subspecialty Care: A Structured Follow-Up of Dementia Patients and Their Caregivers

Peter M. Aupperle, M.D., Department of Psychiatry, RWJ Medical School, 667 Hoes Lane/Box 1392, Piscataway NJ 08855; Andrew C. Coyne, Ph.D.

Summary:

Introduction: With the availability of detailed practice guidelines for Alzheimer's disease (AD), including the documented benefits of prescribing cognitive enhancers, psychotropics, and the provision of psychoeducation for caregivers, one can now examine

the compliance with these guidelines by geriatric psychiatrists and primary care physicians.

Methods: All dementia patients and their caregivers who had received a comprehensive evaluation and a diagnosis of AD at the University of Medicine and Dentistry of New Jersey during 1997 (N=80) were surveyed approximately one year after their initial assessment. Two subgroups were defined: 31 patients were being seen only by their primary care physicians (all of whom had received a detailed consultation letter), while 27 patients were being treated in addition by a geriatric psychiatry faculty member (along with a case manager). The remaining 22 patients were not significantly different from the cohort contacted in terms of both demographic and clinical factors. Data was collected at baseline and at follow-up about the prescription of cognitive enhancers, the patient's cognitive status (via a CDR), the primary care physician's attention to the caregiver, as well as the caregiver's own level of distress (via a Zarit).

Results: There were no differences in the baseline characteristics of the two subgroups (mean age=81.7), and there were no differences in the baseline assessments of cognition (mean MMSE=16.7, mean CDR=1.8), and caregiver distress (mean Zarit=33.8). There were statistically significant differences between the two groups at follow-up in terms of 1) prescription of cognitive enhancers (74% of patients being seen by a geriatric psychiatrist versus 35% of patients seen only by a primary care physician were on donepezil at follow-up); 2) cognitive status (CDR 1.8 versus 2.5, $p<0.05$), 3) case management (100% versus 16%) and 4) caregiver distress (Zarit 19 versus 2 1, $p<0.05$).

Discussion: There are significant differences in the treatment practices of primary care physicians as opposed to geriatric psychiatrists, and at a one year follow-up, there are significant differences between the outcomes of their patients and their caregivers.

NR527 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Hopeless Feeling and All-Cause Mortality in Older Mexican and European-American Community Residents

Stephen L. Stern, M.D., Department of Psychiatry, University of TX Hlth Sci Ctr, 7703 Floyd Curl Drive, San Antonio TX 78284; Rahul Dhanda, Ph.D., David V. Espino, M.D., Michael J. Lichtenstein, M.D., Helen P. Hazuda, Ph.D.

Summary:

Objective: To study hopelessness and mortality in a bi-ethnic cohort of older randomly selected Mexican Americans (MAs), the most rapidly growing segment of the elderly, and European Americans (EAs).

Methods: 795 persons aged 64 to 79 completed English or Spanish versions of the full Geriatric Depression Scale (GDS) on entering an epidemiologic survey, the San Antonio Longitudinal Study of Aging, during 1992-1996. Women comprised 58% and MAs 54% of the cohort. Subjects who answered "no" to the item "Are you hopeful about the future?" were classified as hopeless.

Results: 23% of the 73 hopeless subjects had died as of 12/98 vs. 9% of the hopeful. MA men were more likely than MA women or EA subjects to be hopeless (12%) and to die (17%). Hopelessness—but not a total GDS score >10, the usual cutpoint for probable depression—predicted mortality in a Cox proportional hazards model adjusted for baseline medical comorbidity, age, sex, ethnicity, and socioeconomic status (risk ratio 2.4, p=.002).

Conclusion: These findings suggest that hopelessness predicts mortality in the elderly and may contribute to ethnic differences in mortality rates. Identifying and treating hopelessness may prolong older persons' lives.

This study was supported by NIH grant 1-RO1-AG-10444.

NR528 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Cerebrovascular Risk Factors and One-Year Depression Outcome in Older Primary Care Patients

Jeffrey M. Lyness, M.D., Department of Psychiatry, University of Rochester, 300 Crittenden Boulevard Rochester NY 14642-8409; Eric D. Caine, M.D., Deborah A. King, Ph.D., Christopher Cox, Ph.D., Yeates Conwell, M.D.

Summary:

Objective: A model has been proposed in which small vessel brain disease contributes to the pathophysiology of depression in later life. We tested the hypothesis that systemic risk factors for cerebrovascular disease (CVRFs) are associated with poorer outcome of depression.

Methods: The subjects were 249 patients age ≥ 60 years recruited from primary care settings, from whom psychopathological and medical data were obtained at intake and at one-year follow-up. Psychopathological data included depression diagnosis (based on the Structured Clinical Interview for DSM-III-R) and depression symptom severity (Hamilton Rating Scale for Depression, Ham-D). Medical measures were based on subject interview and physician-investigator review of the medical records. Multiple regression analyses were used to determine the independent association of initial cumulative CVRF severity with depression outcome while controlling for age, gender, and education.

Results: Initial CVRF score was independently associated with Ham-D at one-year ($F = 7.4$, $df = 1,242$, p 0.007). This association remained significant even after subsequently controlling for initial Ham-D score. Similarly, initial CVRF score had a significant independent association with depression diagnosis at one year ($X2 = 5.2$,$df = 1$, $p = 0.02$), and retained a trend level of significance after additionally controlling for initial depression diagnosis ($X2 = 2.8$, $df = 1$, $p = 0.097$).

Conclusions: Our study hypothesis was largely confirmed, supporting the notion that cerebrovascular disease may play a role in older primary care patients with a wide range of depressive symptoms and diagnoses.

Supported by NIMH grant K07 MH01113.

NR529 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Identifying Families with Likely Genetic Protective Factors Against Alzheimer's Disease

Jeremy M. Silverman, Ph.D., Department of Psychiatry, Mt. Sinai School of Medicine, One Gustave Levy PI/Box 1230, New York NY 10029; Christopher J. Smith, B.S., Deborah B. Marin, M.D., Sandra Birstein, Marlene Mare, Richard Mohs, Ph.D., Kenneth L. Davis, M.D.

Summary:

Individuals living beyond age 90 without dementia were hypothesized to have relatively high concentrations of familial/genetic factors protective against Alzheimer's disease (AD). Testing this hypothesis is complicated by having to distinguish a group with true genetic protective factors from others that lack genetic risk factors, have had protective environmental exposures, or have escaped dementia for other reasons.

Probands with genetic protective factors, however, should have relatives with lower illness rates not only for earlier onset disease, when genetic risk factors are a strong contributing factor to the incidence of AD, but also for later onset disease, when the role of genetic risk factors appears to be greatly diminished. AD dementia was assessed through family informants in 6,660 first-degree relatives of 1,049 nondemented probands aged 60 to 102. The probands were grouped by age (60-74, 75-89, 90-102) and the cumulative survival from AD and ten-year, age-interval hazard rates of AD were calculated in their first-degree relatives. Cumulative survival from AD was significantly greater in the relatives of the oldest proband group (aged 90-102) than it was in the relatives of the two younger groups. In addition, the reduction in the rate of illness for this group remained at around 65%-70% across the entire late life span. The results suggest that protective factors against all forms of AD may be more highly concentrated among nondemented probands aged 90+ and their relatives. Molecular genetic strategies searching for genes protective against dementia should target the families of nondemented nonagenarians and centenarians.

NR530 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Estrogen and Noncognitive Psychiatric Symptoms in Elderly Patients with Moderate to Severe Dementia

Helen H. Kyomen, M.D., Department of Psychiatry, McLean Hospital, 115 Mill Street, Belmont MA 02478; John Hennen, Ph.D., Andrew Satlin, M.D., Jeanne Y. Wei, M.D.

Summary:

Objective: To investigate the efficacy and safety of short-term estrogen therapy in decreasing noncognitive symptoms of dementia.

Method: Design: Secondary analyses of data generated in a randomized, double-blind, placebo-controlled clinical trial of short term (four-weeks) estrogen treatment of aggressive behavior in moderately-to-severely demented elderly patients. The setting was the behavioral disturbances unit at a large long-term-care facility in Boston, Massachusetts. The participants were 14 of 57 patients who were screened and who met inclusion and exclusion criteria. Interventions were conjugated estrogens in weekly dose escalation ranging from 0.625 mg per day to 1.25 mg per day. Anxiety, mania, depression, behavior, and delusions/hallucinations/illusions subscales and total score of the Dementia Symptoms Scale were the main outcome measures.

Results: Estrogen therapy was associated with improvements on all five subscales (anxiety, mania, depression, behavior, and delusions/hallucinations/illusions) of the Dementia Symptoms Scale. There also was greater improvement in total Dementia Symptoms Scale scores in the estrogen group compared with the placebo group. No adverse effects from the estrogen were observed during the course of the study.

Conclusions: Estrogen therapy may be helpful in managing noncognitive psychiatric symptoms among moderately-to-severely demented elderly patients.

Acknowledgments: Financial support for this research was provided by the Pfizer/American Geriatrics Society Postdoctoral Fellowship Program, the Hartford Foundation, a Harvard Medical School Consolidated Department of Psychiatry Livingston Fund Award, and a Hebrew Rehabilitation Center for Aged Biomedical Research Support Grant Award. Drug and placebo were donated by Wyeth-Ayerst Laboratories.

NR531 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Colostrinin: New Treatment Perspectives of Alzheimer's Disease

Jerzy W. Leszek, M.D., Department of Psychiatry, University of Wroclaw, Kraszewskiego 25, Wroclaw 50229, Poland; Professor Anna D. Inglot, Professor Jozef Lisowski, Professor Maria Janusz, Professor Andrej Kieima, Professor Jerry A. Georgiades

Summary:

Ovine colostrinin is an 18-kDa proline-rich polypeptide complex, isolated from ovine colostrum by Janusz, Lisowski, et al. in 1974. It has many modulatory effects on cellular and/or humoral immune response in mice, rats and chickens. Recently, Inglot, et al. discovered that the colostrinin is a cytokine-like factor that acts as an inducer of interferon gamma (IFN-g) and other cytokines in human peripheral blood and cord blood leukocyte cultures and has psychoimmuno enhancing activity in volunteers.

We conducted a double-blind, placebo-controlled trial that compared the colostrinin with selenium supplementation and placebo as treatment for Alzheimer's disease (AD). Forty-seven AD patients were randomly assigned to receive orally either colostrinin (100 pig per tablet every second day) or commercial bioorganic selenium (100 μg Se per tablet, every second day) or placebo tablets. One cycle of treatment lasted three weeks and it was separated from the next cycle by a two-week hiatus. Each patient was controlled by three-six MMSE assessments. Outcomes were assessed by psychiatrists blinded to the treatment assignment. Eleven of the 16 AD patients treated with colostrinin improved and five others had stabilized the disease for one year. However, the administration of selenium promoted stabilization in 11 of 15 patients, whereas in the placebo group only three of the 16 AD patients were stabilized at the 12-month evaluation. In this study colostrinin was found to be a remarkably safe drug. Mild and transient side effects observed among some of the patients were anxiety, stimulation, and light insomnia.

NR532 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Relapse and Recurrence in Geriatric Depression

Alastair J. Flint, M.B., Department of Psychiatry, Toronto Hospital, 200 Elizabeth St, 8 Eaton N, Toronto, ONT M5G 2C4, Canada; Sandra L. Rifat, Ph.D.

Summary:

Objective: The authors examined whether nonresponse to first-line pharmacotherapy increased the probability of relapse or recurrence following remission of an episode of geriatric depression.

Method: The study group consisted of 75 elderly patients whose index episode of nonpsychotic unipolar major depression had responded (HAM-D $\leq$ 10) to antidepressant treatment. In seven of these patients, the depressive episode had not responded to first-line pharmacotherapy (eight weeks of nortriptyline, including two weeks of adjunctive lithium) but it had remitted with second-line (phenelzine lithium [n = 6]) or third-line (ECT [n = 1]) treatment. All patients were maintained on full-dose antidepressant medication and followed for two years or until relapse or recurrence, whichever occurred first. Relapse or recurrence were diagnosed if a patient met symptomatic criteria for DSM-III-R major depression for at least one week and had a HAM-D score of $\geq$ 16.

Results: The cumulative probability of relapse or recurrence was 64% for nonresponders to first-line treatment compared with

18% for responders (p=0.0007). Time to remission was significantly longer among patients who did not respond to first-line treatment but this did not account for the difference in outcome between the two groups.

Conclusion: Resistance to first-line pharmacotherapy was associated with an increased risk of relapse or recurrence following remission of an episode of geriatric depression.

NR533 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Antidepressant Use and Suicide in the Elderly

Alastair J. Flint, M.B., Department of Psychiatry, Toronto Hospital, 200 Elizabeth St, 8 Eaton N, Toronto, ONT M5G 2C4, Canada; Jose M. Silveira, M.D., Anne Rhodes, M.Sc., Ron Heslegrave, Ph.D., Paul S. Links, M.D.

Summary:

Objective: Depression is the main risk factor for suicide in late life. There is reason to think that the availability of SSRI antidepressants has resulted in more widespread treatment of depression among the elderly. Therefore, we examined whether (a) antidepressant prescription rates increased over time and (b) suicide rates decreased over time among the elderly in the Canadian province of Ontario.

Method: Antidepressant prescription rates for persons 65 years or older were obtained from the Ontario Ministry of Health for the years 1990 (the first year that data were available and the first full calendar year that an SSRI was available) through 1996. Suicide rates for the same age group were obtained from the provincial coroner's office for 1983-1996.

Results: Antidepressant prescription rates increased from 8,610/100,000 in 1990 to 11,183/100,000 in 1996 (p=0.0005). This was primarily accounted for by a 500% increase in the rate of SSRI use from 1992 to 1996. Although the mean rate of suicide for 1990-1996 was lower than that for 1983-1989 (13.8 versus 19.0/100,000; p=0.0001), suicide rates did not significantly change during 1990-1996. Thus, there was no significant association between antidepressant prescription rates and suicide rates during this period.

Conclusion: Antidepressant prescription rates increased between 1990 and 1996, but this was not associated with a statistically significant reduction in suicide rates among the elderly in Ontario.

NR534 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Continuation Treatment of Geriatric Psychotic Depression

Barnett S. Meyers, M.D., Department of Psychiatry, NY Hospital-Cornell, 21 Bloomingdale Road, White Plains NY 10605; George S. Alexopoulos, M.D., Tatsu Kakuma, Ph.D., Michelle Gabriele, M.S.W., Fughik Tirumalasetti, M.D., Mimi Hamilton, Ph.D.

Summary:

Objective: To assess the efficacy and side effects of continuation combination treatment for late-life psychotic depression.

Methods: As part of an NIMH-funded study, 27 elderly cognitively intact patients (age =72.7±8) with DSM-IV unipolar psychotic depression were randomized to double-blind, placebo-controlled continuation treatment with nortriptyline plus perphenazine or nortriptyline alone following ECT. Target nortriptyline plasma levels were 80-120 ng/ml, and target perphenazine doses were 8-16 mg/day as tolerated. Baseline and prerandomization 1-item Ham-D scores were 28.5±5 and 3.1±4.

Results: Combination therapy subjects required lower nortriptyline doses to achieve comparable therapeutic concentrations, 50.5±15 mg versus 66.8±10 mg/day (p=.01) and had higher levels per dose (p=.006). Seven subjects (25.9%) relapsed within five months without significant differences between combination and monotherapy. Combination therapy subjects had significantly greater and more frequent extrapyramidal side effects and falls. Average Simpson-Angus extrapyramidal symptom scores tended to increase more in combination subjects (t=1.96, df20, p=.06). Combination therapy subjects had a significantly greater incidence of tardive dyskinesia (46% versus 0%, Fisher's Exact Test P=.03) and to suffer at least one fall (53.9% versus 14.3%, P=.05).

Conclusion: Preliminary data suggest that six months of combination therapy with a traditional antipsychotic does not markedly improve relapse rates, but is associated with increased extrapyramidal adverse events.

NR535 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Double-Blind Dehydroepiandrosterone Treatment of Alzheimer's Disease

Owen M. Wolkowitz, M.D., Department of Psychiatry, University of California, 401 Parnassus Ave, Box F-0984, San Francisco CA 94143; Joel H. Kramer, Psy.D., Victor I. Reus, M.D., Martin E. Costa, Ph.D., Kristine Yaffe, M.D., Pamela Walton, M.S., Murray A. Raskind, M.D., Elaine Peskind, M.D., Paul A. Newhouse, M.D., DHEA-Alzheimer's Dis Collab. Research Grp, Errol B. de Souza, Ph.D., Eugene Roberts, Carl Sadowsky, M.D., David A. Sack, M.D.

Summary:

Objective: Levels of the naturally occurring hormone dehydroepiandrosterone (DHEA) decline with aging. Some, but not all, reports suggest an especially marked decline in Alzheimer's disease. This may be pathophysiologically important since in animal models DHEA has memory-enhancing and neuroprotective effects.

Methods: 58 patients with "probable Alzheimer's disease" were randomized to receive DHEA name: NPI-34133). 50 mg. p.o. b.i.d., or placebo for six months in a between-groups design. Cognitive (Alzheimer's Disease Assessment Scale-Cognitive (ADAS-Cog]) and global (Clinician's Interview-Based Impression of Change [CIBIC]) ratings were performed at baseline and at three and six months.

Results: DHEA treatment restored serum DHEA levels to or slightly above those seen in young adults. DHEA treatment, relative to placebo, was associated with significant improvement in ADAS-Cog ratings at Month 3 ($p< 0.02$) and a trend towards significant improvement at Month 6 ($p= 0.062$). When "clinically significant" degrees of change (change in ADAS-Cog rating of ≥ 2) were assessed, significantly more DHEA-treated subjects showed clinically significant improvement at Month 6 than did placebo-treated ones ($p< 0.02$). No significant difference between treatments was seen on the CEBIC. Placebo, compared with DHEA treatment, was associated with a significantly earlier time to drop-out of the study ($p< 0.03$), also consistent with greater efficacy of DHEA compared with placebo.

Conclusion: DHEA, in the doses and time period used, enhanced cognitive performance relative to placebo. This is the first demonstration that DHEA treatment may benefit patients with Alzheimer's disease.

NR536 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Characteristics of Older Americans Reporting a History of Psychiatric Disorder: Medicare Current Beneficiary Survey, 1996

Daniel P. Chapman, Ph.D., Aging Branch, CDC, 4770 Buford Highway NE, MS K45, Atlanta GA 30341; Donald K. Blackman, Ph.D., Laurie A. Kamimoto, M.D.

Summary:

While older community dwellers experience significant psychiatric symptomatology, psychiatric disorders may remain undiagnosed and untreated in this population. In this investigation, we examine characteristics of those older adults reporting a lifetime history of psychiatric disorder on the 1996 Medicare Current Beneficiary Survey (MCBS), a continuous survey of a representative sample of the Medicare population, including adults 55 years and older residing in the community (N=14,821). Overall, 3.7% of respondents reported that a doctor had ever told them they had a psychiatric or mental disorder, with nearly identical percentages of men and women indicating they had received this diagnosis (3.6% vs. 37%). A lifetime history of psychiatric disorder was more frequently reported by respondents with an annual income of less than $25,000 than by those with an income greater than $25,000 (4.1% vs. 2.9%), and among respondents with less than a high school education (4.2%). American Indian and Hispanic respondents reported more frequent lifetime diagnosis of psychiatric disorders (6.4%, 7.0%, respectively) compared to Asian, black, and white MCBS respondents (range=3.1-3.7%). These results suggest that while older community dwellers do not frequently report having received a diagnosis of a psychiatric disorder, demographic characteristics of MCBS respondents are associated with differences in the rates reported.

NR537 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Psychiatric Comorbidities of Elderly Patients in Nursing Homes

Melinda S. Lantz, M.D., Department of Psychiatry, Jewish Home & Hospital, 120 West 106th Street, New York NY 10025; Eric N. Buchalter, D.O.

Summary:

Objective: There is an increase in the use of the nursing home as a short-stay, transitional care and rehabilitation facility. In addition, needs for traditional long-term care continue. While the focus of care has been on the increasingly complex medical needs of patients, the psychiatric comorbidities found in this population are poorly described and pose a significant challenge to providing comprehensive care. This study identifies the psychiatric disorders present among elderly patients admitted to an urban nursing home for either subacute or long-term care.

Method: Consecutive admissions to both the subacute/rehabilitation (N=78) and long-term-care (N=71) units of a 514-bed academic nursing home underwent psychiatric assessment within seven days of admission using DSM-IV criteria and cognitive assessments. The Geriatric Mental State Schedule was utilized as part of a semistructured clinical interview.

Results: At least one psychiatric diagnosis was present among 80% of subacute admissions and 90% of long-term-care admissions. Dementia was more common among long-term-care admissions (80% vs. 45%, $p<0.05$). Delirium was more common among subacute admissions (30% vs. 5%, $p<0.05$). Adjustment disorders were more common among subacute patients (25% vs. 7%, $p<0.05$).

Conclusion: The incidence of psychiatric disorders in the nursing home remains high. This study replicates the finding of previous investigators and demonstrates great psychiatric pathology among subacute/rehabilitation patients. Access to psychiatric services will continue to be of great importance within nursing facilities regardless of length of stay.

NR538 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Rivastigmine Slows Stage-Specific Global Deterioration in Alzheimer's Disease

K. Ranga R. Krishnan, M.D., Department of Psychiatry, Duke University Medical Center, Rm. 3547/Box 3018/Duke S Hosp, Durham NC 27710; P. Murali Doraiswamy, M.D., Jeff Veach, M.S.

Summary:

Objective: To analyze the progression rate of AD patients treated with rivastigmine into more severely impaired Global Deterioration Scale stages.

Methods: 584 (699 randomized) patients with probable AD (NINCDS criteria) who completed a prospective, double-blind, multicenter trial conducted at 22 U.S. sites were analyzed. Patients were randomized to receive rivastigmine tartrate (ENA 713) 1-4 mg daily, 6-12 mg daily, on placebo for 6 months. GDS staging was done at baseline (1.7% very mild, 31.3% mild, 37.0% moderate, 29.2% moderately-severe, and .07% severe) and week 26. At entry patient distribution, was not significantly different across treatment groups.

Results: Analysis confirmed that a lower portion of high-dose rivastigmine-treated patients progressed to a more severely impaired AD stage compared to placebo-treated patients, at end point ($p=0.024$). A smaller portion of low-dose rivastigmine-treated patients also progressed to a less functional stages, with comparison to placebo showing borderline statistical significance ($p=0.07$).

Conclusions: The data suggest that rivastigmine decreases stage-specific deterioration of AD patients.

This study was supported by Novartis Pharmaceuticals Inc.

NR539 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Effects of Mirtazepine on Depression and Weight in Very Elderly Patients

Ben Zimmer, M.D., Department of Psychiatry, Allegheny General Hospital, 320 East North Avenue, Pittsburgh PA 15212; Victor G. Stiebel, M.D., Robert T. Rubin, M.D.

Summary:

Objective: Mirtazepine is a tetracyclic antidepressant that appears to increase central noradrenergic activity by antagonizing central presynaptic (α_2 autoreceptors. It also antagonizes 5-HT_2 and 5-HT_3 receptors, H_1 receptors (accounting for its sedative and purported weight-gain properties), and α_1 receptors (occasionally producing orthostatic hypotension). Few studies of the ancillary effects of mirtazepine, such as weight gain, have been done in very elderly subjects. This study examined this effect in depressed patients ages 74-98.

Method: Nineteen depressed nursing-home residents (85.6 ± 7.1 years; 14 women, 5 men) were administered mirtazepine (15-45 mg) for 1-10 months. Sixteen patients also had dementia of varying etiology and severity. Outcome variables included behavioral rating scales and weight.

Results: Mirtazepine was an effective antidepressant in these very elderly patients: The initial Montgomery-Åsberg Depression Rating Scale score was 21.2 ± 7.5, and the final score was 5.8 ± 5.4. Seventeen patients had initial and final weights documented, and weight change (Δ) varied significantly inversely with age: Of 5 patients ages 74-80, 4 gained weight, none lost weight, and 1 remained the same; of 6 patients ages 81-90, 3 gained weight, 2 lost weight, and 1 remained the same; of 6 patients ages 91-98, 1 gained weight, 3 lost weight, and 2 remained the same ($r_{age:\Delta weight}$ = -0-50; $p < 0.05$). There was a trend for systolic blood pressure to drop 10-20 mm, with little change in diastolic pressure. No episodes of orthostatic hypotension were reported.

Conclusions: Mirtazepine is a relatively safe, sedating antidepressant in very elderly patients with dementia. Its weight-promoting effect diminishes with increasing age.

Supported in part by NIMH grant MH28380 to RTR.

NR540 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Relationship Between Mental Illness, Self-Perceived Health and Social Conditions: The Galicia Survey of Mental Health of the Elderly

Raimundo Mateos, Department of Psychiatry, University Santiago, Bentin, Biduido, Santiago Compostel 15822, Spain; Maria C. Garcia, Ph.D., Beatriz Camporro, M.D., Mario Paramo, Ph.D., Maria C. Carollo, Ph.D., Antonio Rodriguez-Lopez, Ph.D.

Summary:

Objectives: To analyze, in a ample natural community, the relationship of 1) self-perceived to objective status of mental health; 2) both health indexes to sociodemographic variables and index of social position.

Methods: The Galicia Survey of Mental Health of the Elderly was designed in two phases. In the first, a random sample of 3580 people over 60 years of age, representative of each of the 9 Public Health Authority Areas were interviewed at home. The 60-items version of GHQ was the main screening instrument. In the second phase, all the traced high GHQ scores (N=532) and a sample of low scorers (N=149), were interviewed at home by means of the Diagnostic Interview Schedule (DIS-III). Sociodemographic variables, self-perceived health, social support and several index of social position were also evaluated.

Results: A positive correlation between selfperceived health and objective measures of mental health was found. While the prevalence of mental disorders, as a whole, increased with age, functional disorders decreased. Consistently, lower social class groups presented higher rates of mental disorders.

Conclusions: These findings provide further evidence of the inverse relationship between social class and mental well-being. They also suggest that it is possible identify high-risk subgroups of the elderly population who could benefit from programs of social support.

Research founded by Xunta de Galicia (Galician Government, Spain).

NR541 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Unrecognized Dementia in Geriatric Patients

Felipe Sandoval, M.D., Department of Psychiatry, University Hospital, APDO. Postal 3-4101, Monterrey NL 64461, Mexico; Alfonso Ontiveros, M.D., Magdaleno Perez, M.D.

Summary:

Objective: To identify dementia disorders in geriatric outpatients who seek psychiatric attention for depressive symptoms.

Method: We evaluated 130 outpatients aged 60 years or more. Patients were interviewed twice, first with a standard psychiatric clinical interview and second by the administration of EXIT, QED, MMSE, Haschinski and global impairment scales. Depression was studied with the Raskin-Covi, HamD, HamA and geriatric depression scales.

Results: Patients' characteristics: (mean ± SD) 70.9±7.24 years of age (range 60-91), 32% were men; depressive symptoms onset at 68.3±7.91 years of age, 27.6% patients had previous episodes; duration of present episode 28.2±45.94 months. Dementia disorders were suspected by first clinical evaluation in 33 patients but scales for dementia discarded it in seven cases. Second evaluation and scales helped to detect dementia disorders in 48 patients (34%) and clinical evaluation only in 19% patients (z=2916 P<.004). Final diagnoses were: 87 patients with major depression, 32 patients with dementia complicated with major depression, 16 patients with dementia disorders without depression and 5 patients with other diagnoses.

Conclusion: Use of an interview and scales for dementia help to detect unrecognized dementia disorders in geriatric outpatients with depressive symptoms.

NR542 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Clinical Improvement and Tolerability Is Maintained Long-Term in Elderly Patients with Psychotic Disorders Treated with Quetiapine

Pierre N. Tariot, M.D., Department of Psychiatry, Monroe Community Hospital, 435 East Henrietta Road, Rochester NY 14620; Carl Salzman, M.D., Paul P. Yeung, M.D., Joseph Pultz, Ph.D., Joher Raniwalla, M.D.

Summary:

Physiologic changes can make elderly patients more vulnerable than younger patients to the side effects of standard antipsychotic medications, especially extrapyramidal symptoms (EPS). Quetiapine fumarate, an antipsychotic with no treatment-emergent or dose-related EPS or elevations of plasma prolactin, has demonstrated advantages to suggest that it may be potentially a very attractive therapeutic option in an EPS-sensitive patient population such as the elderly. To explore the therapeutic utility and tolerability of quetiapine in this EPS-sensitive patient population, a 52-week, multicenter, open-label trial in men and women at least 65 years of age (50 years or older for patients with Parkinson's disease) with psychotic disorders was conducted. This report provides preliminary data in 184 patients regarding the clinical therapeutic utility and tolerability of quetiapine in elderly patients with psychotic disorders. Patients received 25 to 800 mg/day of quetiapine, dosed according to clinical response and tolerability for up to one year. Clinical benefit was assessed using the BPRS and the CGI. Patients were also evaluated using the Simpson-Angus Scale (SAS) and AIMS in addition to physical examinations, vital signs, weights, clinical laboratory tests, ECGs, and reports of adverse events. In this patient population with a mean age of 76 years, the median total daily dose was 100 mg and the median duration of exposure was 350 days. Significant improvement from baseline in BPRS Total ($p<0.0001$) and CGI Severity of Illness ($p<0.01$) scores was noted at all time points measured (from Week 2 onward). BPRS positive and negative symptom cluster scores also showed improvement at all time points. Clinically significant improvement, defined as a decrease of at least 20% from baseline scores on the BPRS, was achieved by 49% of the patients at end point. Mean SAS total score decreased from 19.0 at baseline to 17.2 at end point and

the mean AIMS score decreased from 4.9 at baseline to 4.3 at end point. No clinically important effects on mean hematology or clinical chemistry values, ECGs, or vital signs were observed. The results from this open-label trial suggest that quetiapine may be an potential alternative to standard antipsychotic agents for long-term use in the elderly.

NR543 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Psychiatric Disorders in Patients with Blepharospasm: A Reactive Pattern?

Griengl Hemma, M.D., Department of Psychiatry, University of Vienna, Waehringer Guertel 18-20, Vienna 1050, Austria; Thomas Wenzel, M.D., Peter Schnider, M.D.

Summary:

Objective: The purpose of this study was to assess the frequency of life time or current psychiatric disorders in patients suffering from blepharospasm. The onset of the psychiatric symptoms in relation to the dystonia was recorded as well as the functional impairment caused by blepharospasm.

Method: 31 consecutive patients with blepharospasm attending the Department of Neurology were interviewed at the Department of Psychiatry at the University of Vienna. Patients had been submitted to standard neurological diagnostic procedures, psychiatric diagnoses were made with the help of the SCID, functional impairment was assessed by the included general assessment of functioning scale (GAF).

Results: A current or life time psychiatric diagnosis was made for 22 patients (71%). The most frequent disorders were depressive disorders (16 patients) — mainly major depression (5 patients), secondary dysthymia (6 patients) and recurrent major depression (5 patients). 14 patients fulfilled criteria for a current or lifetime anxiety disorder, 3 patients met criteria for current or lifetime substance dependence. The mean GAF score in our sample of patients was 63.1%.

Conclusion: Psychiatric disorders, apart from those that could be seen as being secondary or reactive to blepharospasm, were not more frequent in the patients of our study than might have been expected in any clinical population.

NR544 Wednesday, May 19, 3:00 p.m.-5:00 P.m. Prescription Patterns of Older and Newer Antidepressants for Geriatric Depressive Outpatients

Luis Aguera-Ortiz, M.D., Department of Psychiatry, Hospital 12-Octubre, Pablo Iglesias 15, Madrid 28003, Spain; Silvia Gonzalez-Parra, M.D., Remedios Sanchez-Piedra, M.D.

Summary:

Objective: To study the prescription patterns of antidepressants for an elderly population.

Methods: 140 outpatients suffering an index depressive episode were studied and followed for at least one year.

Results: Demographics: 75% women. Mean age: 72.4. Major Depression: 71%. Late-onset: 41%. The most frequently used types in the first choice were SSRIs (48.6%) and Tricyclics (45%), the molecules initially most prescribed: fluoxetine (26%) mianserin (13%) and paroxetin (10%). Initial choice of treatment achieves satisfactory remission in 32.9% of the cases. 57% of patients needed a first molecule switch, 23% received only two molecules, 16% three, 5% four and 11% five molecules or more. After the first switch, the initial SSRI was substituted by another SSRI in 48% of the cases and by a tricyclic in 30%. Initial tricyclic changed to a SSRI in 33% and another tricyclic in 45%. The patterns of tricyclics and SSRIs use were not essentially different and both were used globally in the same proportion, although the most prescribed molecules were fluoxetine, fluvoxamine and paroxetine. Both groups achieved statistically similar number of remissions and suppressions by intolerance o inefficacy but tricyclics were increasingly used from the first switch onwards.

Conclusions: The general efficiency of treatments is not high and, despite information favoring SSRIs in geriatric depression, we found little differences with tricyclics in everyday practice.

NR545 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Hypotension, MR Hyperintensities and Depression in Older Hypertensives: A Pilot Study

Blaine S. Greenwald, M.D., Department of Psychiatry, Hillside Hospital, 75-59 263rd St/Lowenstein Bldg, Glen Oaks NY 11004; Elisse Kramer-Ginsberg, Ph.D., Heino Anto, M.D., Manzar Ashtari, Ph.D., K. Ranga R. Krishnan, M.D., Paul Samuel, M.D., Mahendra C. Patel, M.D.

Summary:

Low blood pressure, NM signal hyperintensities, and hypertension have independently been linked to depressive phenomena in the elderly, however, analysis of their interactions with regard to depression are, to our knowledge, lacking.

Objective: To compare depression and hyperintensity variables in elderly hypertensives dichotomized on the basis of presence of low blood pressure.

Methods: Twelve elderly hypertensives were recruited from hypertension outpatient programs and evaluated for depressive symptomatology (SCID, Ham-D, CGI for depression), MRI (1.5 T; T-2 weighted, FLAIR) hyperintensities in deep white and subcortical gray matter (Scheltens 7-point scale), and blood pressure indices (24 hour ambulatory blood pressure monitoring [ABPM] [SpaceLabs Medical, Inc.]). Hypertensives were divided into two groups on the basis of presence/absence of "hypotension" (defined as mean 24 hour diastolic blood pressure < 75 mm Hg [after Barrett-Connor & Palinkas, BMJ, 1994]) and compared on depressive and MRI variables.

Results: Hypertensives with low blood pressure (n = 7) as compared to those without low blood pressure (n = 5) had non-significantly higher Ham-D ratings (9.5 vs. 5.4) and consistently more severe hyperintensity ratings in frontal and parietal deep white matter regions.

Conclusions: These very preliminary data that, to our knowledge, for the first time simultaneously examine 24 hour ABPM-derived blood pressure indices, neuroanatomically-localized MR hyperintensities, and depressive symptoms intimate possible relationships between lower blood pressure, deep white matter hyperintensities, and higher depressive symptom ratings. Since hypertension is highly prevalent in the elderly, associated lower blood pressure underrecognized, and potential ramifications of low blood pressure serious (e.g. brain abnormalities and psychological morbidity), these early findings support further investigation into larger patient samples.

NR546 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Risperidone Versus Olanzapine in the Treatment of Patients with Schizophrenia or Schizoaffective Disorder

Robert R. Conley, M.D., Psychiatric Research Cntr, University of Maryland, PO Box 21247, Baltimore MD 21228; Martin B.

Brecher, M.D., Risperidone/Olanzapine Study Group.

Summary:

Objective: The efficacy and safety of risperidone and olanzapine were compared in a double-blind study.

Method: Four hundred seven patients with schizophrenia or schizoaffective disorder were randomly assigned to receive flexible doses of risperidone (2-6 mg/day) or olanzapine (5-20 mg/day) for eight weeks. Assessments included the Positive and Negative Syndrome Scale, the Extrapyramidal Symptom Rating Scale, vital signs, weight change, electrocardiograms, laboratory test results, and adverse events.

Results: Mean modal doses were 4.8 mg/day of risperidone and 12.5 mg/day of olanzapine. Patients receiving risperidone showed statistically significantly greater improvements than olanzapine patients at Week 8 on PANSS positive and affective (anxiety/depression) symptoms. There were no significant differences between risperidone and olanzapine on improvements in negative symptoms, disorganized thought, or uncontrolled hostility. Endpoint analysis revealed no significant between-group differences in total PANSS or PANSS factors. Statistically significantly more patients receiving risperidone than olanzapine showed clinical improvement (≥30% reduction in total PANSS score from baseline). In no domain was olanzapine statistically superior to risperidone at Week 8 or endpoint. The severity of extrapyramidal symptoms (via ESRS scores) was reduced in both treatment groups with no significant between-group differences. Increases in body weight and body mass index were significantly greater in patients treated with olanzapine than risperidone. Olanzapine patients gained an average of 1 lb/week (0.045 kg/wk).

Conclusion: In this first prospective comparative study of risperidone and olanzapine that used clinically relevant doses, risperidone was both more efficacious and safer on important measures.

NR547 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
The Impact of Caregiver Distress of Donepezil Treatment of Patients with Mild Alzheimer's Disease

Philippe H. Robert, M.D., Centre De Memoire, Hopital Pasteur, 30 Av De La Voie Romaine BP69, Nice Cedex 06002, France; Florence Lebert, M.D., Sylvia Goni, M.D., Jacques Touchon, M.D.

Summary:

Objective: To evaluate the impact of donepezil administration to patients with mild Alzheimer's disease (AD) on stress levels in their caregivers.

Methods: This was a 12-week, randomized, blinded, parallel-group study of 318 community-based patients with mild uncomplicated probable AD (MMSE scores of 18-26), of whom two-thirds received donepezil and the remainder placebo. All patients randomized to active treatment received 5 mg/day for 4 weeks, before having their dose increased to 10 mg/day if well-tolerated. In addition to a number of patient assessments throughout the study, at baseline and at Week 12, caregivers rated themselves as 0, 1, 2, 3 or 4 (0=not at all; 4=extremely) on 10 questions that comprise the abridged Relative Stress Scale (a_RSS), a measure of caregiver distress. Change scores therefore ranged from -4 to +4, where a negative change score indicates a more favorable caregiver response at Week 12 than at baseline, and a positive mean change score indicates the reverse.

Results: Donepezil was well-tolerated; at Week 4, 87% of patients had their dose increased from 5 to 10 mg/day. The total adjusted mean change score (for all 10 a_RSS questions) at Week 12, for the caregivers of the donepezil-treated patients (don-carers) was -0.506, indicating that for these carers the situation had improved, while the corresponding value for the caregivers of the placebo group (pl-carers) was 1.649 indicating that for these carers the situation had deteriorated ($p<0.01$). Indeed, (for all 10 a_RSS questions) mean change scores between baseline and Week 12 indicated that for more don-carers the caregiving situation was improved after 12 weeks of treatment than for the pl-carers. For example, when asked if they had been embarrassed by the patient, for 16% more of the don-carers, the situation was improved or unchanged at Week 12 compared to baseline, than for the pl-carers. On the questions 'do you feel like you need a break?', 'is it difficult to receive visitors?' and 'have you felt that you could no longer tolerate this situation?', there was also a statistically significant improvement at Week 12 in favor of the don-carers ($0.01<p<0.05$).

Conclusions: Donepezil administration to patients with mild AD is associated with reduced stress in their caregivers over a 12-week period. These results provide further impetus to the drive for AD diagnosis and treatment.

NR548 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
A Comparative Analysis of Risperidone and Olanzapine Dosing Patterns in the South Carolina Medicaid Program

Chris M. Kozma, Ph.D., College of Pharmacy, University of South Carolina, Columbia SC 29208; S.H. Mody, Pharm.D., M.K. Sadik, Ph.D.

Summary:

Objective: This study investigates dosing patterns from a "real world" practice setting to compare how actual prescription costs differ from package insert recommendations for risperidone and olanzapine.

Methods: Patients with initial prescriptions for risperidone (n=443) and olanzapine (n=861) in the 1997 South Carolina Medicaid database were identified. The average dose of medication per day was calculated as a percentage change from package insert guidelines. Factorial analysis of covariance was used to test for differences between the average percentage of dose per day for medication and diagnostic categories. Covariates were compliance, total preperiod costs, and eligibility.

Results: There were no statistically significant between-group differences in age, race, sex, eligibility, or compliance. In the year before initial antipsychotic use, both groups had similar total health-care costs ($p=0.07$) and number of comorbid conditions ($p=0.06$). Patients treated with olanzapine had received a higher number of different neuroleptics (2.09 vs. 1.71, $p=0.001$). The average dose of risperidone was 48% of its recommended package insert dose while olanzapine was 122% ($p=0.0001$). Average cost per day from these data was $4.88 for risperidone and $9.44 for olanzapine.

Conclusions: Relative to package insert guidelines. risperidone patients were prescribed significantly lower doses than were olanzapine patients. Comparing "real world" doses and recommended package insert doses, average costs per day were higher than expected for the olanzapine group and lower than expected in the risperidone group. When making formulary decisions or selecting preferred products, decision-makers should consider actual dosing patterns.

NR549 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Dosing Trends and Associated Schizophrenia-Related Health Care Costs from a State Medicaid Perspective: Risperidone Versus Olanzapine

Brian Nightengale, Ph.D., Outcomes Inc., Applied Health, 33920 US 19 North, Ste 340, Palm Harbor FL 34684; John M. Crumly, R.Ph., Susan J. Kernodle, Ph.D., Elgene W. Jacobs, Ph.D.

Summary:

Objective: To compare the treatment patterns and associated health care expenditure trends of risperidone and olanzapine in a state Medicaid program.

Methods: Prescription and medical claims for patients with schizophrenia were analyzed from November 1996 through October 1997. Descriptive statistics were generated for each month and included daily dose, concomitant anticholinergic use, drug costs, and non-drug schizophrenia-related health care costs.

Results: The mean daily dose of risperidone remained relatively consistent over the 12-month timeframe (range 5.37 mg ± 0.18 to 4.79 mg ± 0.13). The mean daily dose of olanzapine gradually increased over the same period (10.63 mg ± 0.38 to 13.30 mg ± 0.41). The weighted average daily dose was 5.06 mg and 12.28 mg for risperidone and olanzapine respectively. The proportion of patients receiving concomitant anticholinergic prescriptions gradually increased in each group with olanzapine being greater at each monthly observation. The weighted proportion over the 12-month timeframe was 45.6% and 59.7% for risperidone and olanzapine, respectively. The weighted average total monthly schizophrenia-related cost per patient was $88.31 lower for risperidone compared to olanzapine.

Conclusions: Results indicated that the dosing trends for risperidone were below the product labeling recommendations while the dosing trends for olanzapine were greater. Compared to risperidone, olanzapine was associated with a higher proportion of patients treated with a concomitant anticholinergic agent and higher drug costs incurred by the Medicaid system.

NR550 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Symptoms Commonly Attributed to Prolactin: A New Assessment Tool and Findings from a Trial of Risperidone Versus Olanzapine

Ramy A. Mahmoud, M.D., Janssen, 1125 Trenton-Harbourton Road, Titusville NJ 08560; Luella M. Engelhart, M.S., C. Janagap, M.S., J. Dogherty, M.D.

Summary:

Objectives: Novel antipsychotics offer increased efficacy, fewer side effects, and better quality of life; however, they are differentiated not only by different CNS receptor binding profiles, but also by different side effect profiles and different efficacy in various domains. After consideration of symptom efficacy (positive and negative) and more serious or potentially life-altering side effects (EPS, TD, weight gain, anticholinergia), effects that are less serious or of unclear importance such as laboratory elevation of prolactin levels may be considered in choosing therapy. Although certain symptoms are commonly attributed by clinicians to serum prolactin elevation (e.g., sexual dysfunction, menstrual disturbance), the relationship between these symptoms and prolactin levels or with risperidone and olanzapine is unclear. We attempt to better understand these issues.

Methods: In a prospective randomized trial comparing risperidone and olanzapine, we evaluate performance (sensitivity, predictive value) of the new Symptoms Potentially Related to Prolactin Questionnaire (SPRQ), symptom prevalence, association of symptoms with elevation of serum PRL, and differences between patients treated with risperidone and olanzapine.

Results/Conclusions: There was no difference between risperidone and olanzapine in reporting of symptoms commonly attributed to prolactin (all $p \geq 0.12$). Elevation of PRL was not associated with patient reported symptoms. The SPRQ demonstrated high sensitivity (1.0) and predictive value negative (1.0) when assessed against patients identified by spontaneous reporting. Overall prevalence of any symptom measured by the SPRQ was high (31.4%): symptoms are common but not necessarily associated with antipsychotic drug or serum PRL, and other etiologies should be considered.

NR551 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Patients Switched from Depot Antipsychotics to Oral Risperidone or Olanzapine: An Open-Label Randomized Trial

Kimberly H. Littrell, A.P.R.N., The Promedica Research Center, 3758 Lavista Road, Tucker GA 30084

Summary

Objective: To assess treatment compliance and efficacy in outpatients with chronic schizophrenia who were switched from depot antipsychotic medications to atypical agents.

Methods: 24 patients were randomly assigned to receive oral risperidone or olanzapine for 1 year. Medication compliance was quantitatively verified by monthly plasma drug levels. Efficacy was assessed by means of the Positive and Negative Syndrome Scale (PANSS). Eleven of 12 risperidone patients and 10 of 12 olanzapine patients completed 1 year's treatment. The mean doses were 5.2 mg/day of risperidone and 19.2 mg/day of olanzapine.

Results: In the risperidone group, mean PANSS total and subscale scores were reduced at both 6 months and 1 year: significant reductions were seen in positive symptoms at 6 months, ($t = 17.5$, $p < 0.0\ 1$) and at 1 year ($t = 28.5$, $p < 0.00\ 1$), in negative symptoms at 6 months ($t = 11.4$, $p < 0.05$), and in general psychopathology at 6 months ($t = 15.9$, $p < 0.0\ 1$). Changes in the severity of extrapyramidal symptoms (Simpson-Angus Scale) were not significant. In the olanzapine group, mean positive symptom scores were reduced at 1 year (not significant), but no reductions were seen in total scores or negative symptoms or general psychopathology. Severity of extrapyramidal symptoms was not changed.

Conclusion: Both risperidone and olanzapine were well tolerated in patients switched from depot to oral antipsychotics, but superior efficacy was seen with risperidone.

NR552 Wednesday, May 19, 3:00 p.m.-5:00 p.m. A Pilot Study of Cognitive Therapy for Bipolar Disorder

Ari E. Zaretsky, M.D., Department of Psychiatry, Mount Sinai Hospital, 600 University Avenue, #941A, Toronto ON M5G 1X5, Canada; Zindel V. Segal, Ph.D., Michael Gemar, Ph.D.

Summary:

Objective: While the efficacy of Cognitive Behavior Therapy (CBT) for the treatment of acute major depression is well documented, there are few studies that have evaluated its utility in the treatment of bipolar depression. The purpose of this pilot study

was to compare the efficacy of CBT for bipolar depression to CBT for recurrent unipolar depression.

Method: A matched case-control design was used to evaluate outcomes following 20 sessions of CBT in 11 depressed bipolar patients and 11 matched patients with recurrent unipolar depression. All bipolar patients were continued on mood stabilizing medication, but neither group received any antidepressant pharmacotherapy.

Results: Bipolar depressed patients achieved similar levels of reduction in depressive symptoms following CBT as did the unipolar depressed group. However, unlike the recurrent unipolar depressed patients, measures of more pervasive dysfunctional attitudes did not improve to the same degree.

Conclusions: Preliminary findings suggest that CBT warrants further investigation as an effective psychosocial intervention for depression in bipolar patients already receiving ongoing mood stabilizing pharmacotherapy.

NR553 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Cognitive-Behavior Therapy for Non-Cardiac Chest Pain

Philip Spinhoven, Ph.D., Clinical Psychology, Leiden University, Wassenaarseweg, 52, Leiden 2300RB, The Netherlands; Anke S. Van Peski-Oosterbaan, Ph.D., Jan-Willem Van der Does, Ph.D., Yanda Van Rood, Ph.D., Harry G. Rooijmans, Ph.D., Albert V.G. Bruschke, Ph.D.

Summary:

Purpose: Based on the cognitive model of panic disorder, cognitive behavioral treatment programs for patients with non-cardiac chest pain have been developed. The aim of the present study was to investigate whether chest pain reduction following cognitive behavioral therapy occurs predominantly in non-cardiac chest pain patients with panic.

Patients and Methods: Seventy-two patients were enrolled in a randomized controlled treatment study which compared cognitive behavioral therapy (n=37) with care as usual (n=35). Main outcome measures were frequency and intensity of chest pain according to a diary and level of anxiety as assessed with the HADS. Follow-up measurements were at 6 and 12 months.

Results: Treated patients improved significantly with regard to frequency and intensity of chest pain, as well as level of anxiety. Forty-eight percent of the patients in the treatment group were pain-free at 12 months follow-up compared to 12.5% in the control group. In the treatment group 13 completers had panic attacks or a panic disorder and 19 completers were panic free. No differences in outcome were found between panic and non-panic patients.

Conclusions: The similarity in treatment outcome in panic and non-panic patients implies a broad applicability of the cognitive model in patients with non-cardiac chest pain.

NR554 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Risperidone Versus Olanzapine: Discharge Rates and Economic Considerations

Deanna L. Kelly, Pharm.D., Maryland Psych Research Ctr, Box 21247, Baltimore MD 21228; Matthew W. Nelson, Pharm.D., Raymond C. Love, Pharm.D., Robert R. Conley, M.D.

Summary:

Objective: It is essential to consider drug effectiveness as well as cost when selecting moderately priced antipsychotics. This study compares the costs of risperidone and olanzapine based on average doses prescribed, while also considering discharge rates associated with each medication.

Method: Patient records from Maryland state psychiatric facilities were evaluated during both the first year of use after a six-month introduction period and a concurrent six-month period of use. Mean daily doses prescribed and medication costs were assessed during these periods. Discharge rates for each cohort were determined using Kaplan-Meier survival curve analysis.

Results: During the initial marketing period, the average daily dose was 5.9 mg in the risperidone group (n=309) and 16.8 mg (n=646) in the olanzapine group and the average daily costs were $7.69 for risperidone and $11.63 for olanzapine. During the concurrent use period, mean daily doses were 4.0 mg (n=325) and 15.8 mg (n=300) for risperidone and olanzapine, respectively, and daily drug costs were $5.61 for risperidone and $10.97 for olanzapine. The discharge rate at 30 days during the initial marketing phase was 16% for risperidone and 20% for olanzapine. The discharge rate at 30 days in the concurrent phase was 35% and 26% for risperidone and olanzapine, respectively, which represents a significant difference.

Conclusion: Risperidone demonstrates lower medication costs as compared with olanzapine. Discharge rates after 30 days of therapy favor risperidone. In relation to olanzapine, risperidone appears to offer antipsychotic therapy at a lower cost.

NR555 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Identifying Early Response to Treatment with Anti-Dementia Drugs

Stephen Curran, Training and Development, Fieldhead Hospital, Ouchthorpe Lane, West Yorkshire WF13SP, United Kingdom

Summary:

Objective: The perception of flicker is a common feature of all visual systems throughout the animal kingdom. As the frequency of flicker is gradually increased, flickering will eventually appear to stop (ascending threshold). Similarly, as the frequency of flicker is gradually decreased, flickering will appear to start (descending threshold). The average of the ascending and descending thresholds is the Critical Flicker Fusion Threshold (CFFT). This tool has been successfully used over the past 30-40 years to investigate the effects of psychoactive drugs and is one of the most popular techniques in psychopharmacological research. In normal elderly subjects descending thresholds are invariably higher than ascending thresholds and the opposite is observed in patients with AD. It is possible that this difference may be a characteristic feature of AD. This study used CFFT to evaluate the therapeutic effects of 2-menthyl-alpha-ergocriptine, a putative anti-dementia drug.

Method: This was a double-blind, placebo-controlled study with four parallel groups. In total, 18 patients entered this study. Patients received placebo or 2-menthyl-alpha-ergocriptine (2 mg/day, 7.5 mg/day or 15 mg/day) for 24 weeks.

Results: Our results showed that 2-methyl-alpha-ergocriptine increased descending thresholds above the ascending threshold in patients with AD to the levels observed in healthy elderly subjects. This reversal occurred sooner in patients taking 15 mg/day 2-menthyl-alpha-ergocriptine compared with 7.5 mg/day 2-menthyl-alpha-ergocriptine.

Conclusions: Improvements in CFFT, ascending and descending thresholds, and the reversal of the relationship between ascending and descending thresholds need to be investigated further as possible markers of early response to treatment with anti-dementia drugs.

NR556 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
AIDS Mania: Evidence for Right Frontal Dysfunction

Hillel T. Grossman, M.D., Department of Psychiatry, Providence VAMC, 830 Chalkstone Avenue, Providence RI 02908; David A. Gansler, Ph.D., Arletta Cioffari, M.A., Nancy Moczynski, Ph.D., Brian Winkloski, M.A., Rochelle Scheib, M.D., Marshal F. Folstein, M.D.

Summary:

Objective: To describe brain structure and function in subjects with AIDS mania.

Methods: 120 consecutive admissions to an inpatient AIDS unit at a public hospital were evaluated over a two-year period using a semistructured interview, CT scans with quantified ratings, and neuropsychological testing.

Results: Five subjects out of the original 120 (4.1%) met criteria for a current manic episode. The mean age of onset for mania was 41 (±5.0). None of these manic subjects had prior personal or family histories of mood disorder. There were no differences in means for age (40.0), education (11.4), MMSE (26.0), or CD4 count (51.6) between the manic and non-manic groups. CT scan ratings for both groups were characterized by atrophy with no significant differences. On the grooved pegboard, a neuropsychological measure of psychomotor dexterity and speed, the AIDS mania group demonstrated significant asymmetry, with the left upper extremity significantly slower than the right (L:R = 55.6:41.8, p>.00). There was no significant asymmetry in the non-manic group.

Discussion: In this cohort of medically ill AIDS patients with low CD4, mania has prevalence four times higher than would be predicted by community norms. When compared with non-manic controls with similar stage of disease, cerebral atrophy, and general cognitive function, the manic group shows a significant asymmetry of fine motor speed and control, favoring the right hand. This suggests right frontal dysfunction.

NR557 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Progression to AIDS: The Effects of Stress, Depression, Social Support and Denial

Jane Leserman, Ph.D., Department of Psychiatry, University of North Carolina, CB7160/Medical School Wing B, Chapel Hill NC 27599-7160; Hongbin Gu, B.A., Susan G. Silva, Ph.D., Bradley N. Gaynes, M.D., Paula I. Anderson, B.A., Dwight L. Evans, M.D., Robert N. Golden, M.D.

Summary:

Findings have been inconsistent on whether psychological factors have any relationship to disease Progression in HIV infection. This study examines the effects of stress, depressive symptoms, social support, and denial coping on HIV disease progression over a seven and a half-year period among gay men. Data were collected as part of the longitudinal Coping in Health and Illness Project (CHIP). Eighty-two HIV-infected gay men were assessed at six-month intervals. All men were asymptomatic at baseline, with 37% progressing to AIDS (CD4+count < 200/μL and/or having AIDS-indicator condition) by end of study or dropping out. The table below summarizes our findings from a Cox regression model with time-dependent covariates, controlling for age, education, race, baseline CD4+ count, tobacco use, and number of anti-retroviral medications. For each one-point increase in cumulative average stressful events, the hazard of AIDS increased by 15%; for every four-point increase in cumulative average stress (one severe stressor), the hazard of AIDS was increased about 70%. For each one-point increase in cumulative average social support and cumulative average denial coping, the hazard of AIDS decreased by 41% and increased three-fold, respectively. Depressive symptoms were unrelated to AIDS progression. Our findings are among the most compelling data to date linking psychosocial factors and HIV disease progression.

Time-Dependent Covariates (range)	P	Hazard Ratio	95% CI
Stressful Life Events (0-23)	.03	1.15	1.02-1.29
Depressive Symptoms (0-21)	.87	0.98	0.78-1.24
Social Support Satisfaction (1-6)	.04	0.59	0.36-0.97
Denial Coping (1-4)	.004	3.18	1.46-6.96

NR558 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
AIDS Sexual Risk Behaviors Among Addicts in Brazil

Dartiu X. da Silveira, Ph.D., Department of Psychiatry, Unifesp-Proad, Rua Florida 320, Sao Paulo SP 04565, Brazil; Evelyn D. Silveira

Summary:

Objective: To study factors related to AIDS risk behaviors among Brazilian drug addicts.

Methods: We interviewed 1056 addicts from an outpatient care unit in Sao Paulo, Brazil, to examine possible risk behaviors associated with demographics, patterns of drug use, and depressive symptoms.

Results: The subjects presented a mean age of 26.5 years (SD=9.5), 86.9% were male, and 65% single. Most addicts (59%) systematically failed to engage in safe sexual practices. Rate of HIV infection was 3.8%, and 37.5% of the seropositive addicts had never been IV drug users. Among seropositives, 43.7% claimed safe sexual behavior. Alcohol dependents were more prone to neglect safe sexual practices than cocaine dependents (68.7% and 63.6%, respectively). Frequency of alcohol consumption was associated with unsafe sexual practices among men ($p < 0.05$). The presence of depressive symptoms was related to unsafe sexual behavior among women ($p < 0.05$).

Conclusion: We confirmed that among Brazilian addicts the factors associated with AIDS risk behaviors seem to be strongly related to sexual behavior. A considerable percentage of HIV-positive addicts were not infected through IV drug use. The amount of alcohol consumption is definitely an important risk factor for HIV infection among men, and the presence of depressive symptoms seems to play an important role in neglecting safe sexual practices among women. In a broader sense, addicts display polymorphic patterns of behaviors suggesting the need to find specific strategies for different subgroups of addicts. Nevertheless, further studies are required to establish defined profiles of addicts according to risk exposure for the infection.

NR559 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Mental Health and Quality of Life Correlates in HIV Infection

Cheryl A. Kennedy, M.D., Department of Psychiatry, UMDNJ- NJ Medical School, 185 South Orange Avenue, Newark NJ 07103; Bart Holland, Ph.D., Louise Phillips, M.D., Shilpa Pai, B.S.

Summary:

Objective: To evaluate Quality of Life (QL) and mental health outcomes in persons with HIV Infection.

Methods: Interviewers collected data on demographics, social support, psychological distress (Brief Symptom Inventory-BSI) and quality of life (SF-36).

Results: Seventy-two persons completed interviews: 65% male, 70% black; 20% Latino; mean age, 42 years; 80% with income <$10,000, 90% receive Medicaid. Social support was significantly correlated with better mental QL (Mental Component Scale of SF-36, p=0.0001). Support from religion and other organizations was associated with better physical QL (Physical Component Scale, p=0.008) and better mental QL (p=0.02). Social support (p=0.0002) and organizational support (p=0.03) were associated with a lower General Severity Index (GSI) of the BSI. Higher GSI was correlated with worse physical (p=0.03), as well as, worse mental health outcomes (p=0.0001). In regression analysis (n=43), predictably, a lower GSI was significant for better mental health outcomes (p=0.0001). Better social support predicted better physical outcomes (p=0.04).

Discussion: Social support mediates quality of life in this group, for better mental and physical health outcomes. Psychiatrists are in a unique position to assess, provide or recommend interventions which can positively impact quality of life.

Funding provided by an unrestricted research grant from Accuhealth. Inc. Bronx, NY.

NR560 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Incestuous Rape and Dissociative Disorders

Jean-Michel Darves-Bornoz, M.D., Clilnique Psychiatrique U, Hopital Universitaire, Tours 37044, France; Andree Degiovanni, M.D., Philippe Gaillard, M.D.

Summary:

Trauma, especially incestuous trauma. has been shown retrospectively to be frequent in populations suffering from dissociative identity disorder (formerly multiple personality disorder). However, the extent of dissociative disorders and other mental disorders has not often been explored systematically in the victims of incestuous rape.

Thirty-nine victims of intrafamily rape (13-24 years, mean age 17.2 years), consecutively admitted to a forensic center for sexual violence, mostly sent following a court order were interviewed. The center is located the department of gynecology at the University Hospital of Tours, France. The interview consisted of the administration of a psychiatrist-rated battery of standardized clinical instruments including the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D), a questionnaire related to the typology of trauma. and sociodemographic and clinical data.

Among the results of the study, it can be noted that the sample consisted of three male and 36 female subjects; 74% were school-goers or students; 29% of the fathers worked in middle or upper executive positions; the victims' mean age at the time of the first rape was 11 years (SD=3.5); the first assault had occurred at a mean of 6.1 years previously (SD=4); for 85% of the victims the rapes were repeated, and for 64% they were repeated for several months; physical violence occurred during rape in 46% of the subjects; the mean difference in age between the victim and the perpetrator was 22.2 years (SD= 11); the rapes were perpetrated by the father (33%), the stepfather (28%), an uncle (21%), a brother (13%), a grandfather (3%), or a great-grandfather (3%); 90% of the victims complained to authorities; the group prevalence of dissociative disorders was 84%, and 14% (N=5) had dissociative identity disorder.

This shows that dissociative disorders are closely linked to severe trauma such as incest, and that dissociative identity disorder can be found in France if looked for in appropriate populations.

NR561 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Correlation Between Cognitive Effects and Level of Acetylcholinesterase Inhibition in a Trial of Rivastigmine in Patient's with Alzheimer's Disease

Jerome F. Costa, M.D., California Clinical Trials, 8500 Wilshire Blvd, 7th Floor, Beverly Hills CA 90211; Ravi Anand, M.D., Neal R. Cutler, M.D., Richard Hartman, Ph.D., Linda Mancione, John J. Sramek, Pharm.D., Amy Veroff, Ph.D.

Summary:

Objective: To investigate the relationship between cognitive improvement and central pharmacokinetic and pharmacodynamic measures in patients with Alzheimer's disease treated with rivastigmine.

Methods: Eighteen patients with Alzheimer's disease received rivastigmine 1, 2, 3, 4, 5, or 6 mg b.i.d (n=3 per dose) in an open-label dose titration study. Dose titration was performed on an outpatient basis until the patients had tolerated the target dose for at least three days. Subjects were hospitalized for baseline assessments, which included Computerized Neuropsychological Test Battery (CNTB) and for final assessments, which included the CNTB and a 12.5-hour continuous CSF sampling procedure.

Results: Overall cognitive improvement correlated significantly ($p<0.05$) with the area under the curve of CSF, AChE, and butyrylcholinesterase inhibition but not with plasma cholinesterase inhibition, or any of the pharmacokinetic parameters of rivastigmine and its primary metabolite. Reaction times, paired associate learning, and visual memory all correlated with CSF cholinesterase inhibition, while word-list learning and visual matching did not.

Conclusion: Cognitive improvement after dosing with rivastigmine is more closely correlated with central cholinesterase inhibition than with drug concentrations or peripheral cholinesterase inhibition.

This study was supported by Novartis Pharmaceuticals Inc.

NR562 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Olanzapine in the Treatment of Psychosis and Behavioral Disturbances Associated with Alzheimer's Disease

Jamie S. Street, M.D., Lilly Research Labs, Eli Lilly & Company, Lilly Corporate Center, DC0538, Indianapolis IN 46285; W. Scott Clark, Ph.D., Kimberley S. Gannon, Ph.D., Steve Mitan, M.S., Todd M. Sanger, Ph.D., Gary D. Tollefson, M.D.

Summary:

Objective: A multicenter, double-blind, placebo-controlled study was conducted in nursing home patients with moderate to severe dementia to determine the efficacy and safety of olanzapine in the treatment of psychosis and behavioral disturbances associated with Alzheimer's disease. Subjects met the National Institute of Neurological and Communicative Disorders and Stroke-Alzheimer's Disease and Related Disorders Association criteria for possible or probable Alzheimer's disease.

Methods: Following a placebo lead-in period, 206 patients were randomly assigned to either placebo or a fixed dose of 5 mg, 10 mg, or 15 mg/day of olanzapine for up to six weeks of double-blind therapy. The primary efficacy measure was the change in mean scores from baseline to endpoint on the sum of

the Agitation, Delusions, and Hallucinations items of the Neuropsychiatric Inventory – Nursing Home version (NPI/NH), a caregiver-rated scale that assesses psychopathology in dementia.

Results: Olanzapine provided superior efficacy compared to placebo on the combined Agitation, Delusions, and Hallucinations items of the NPI/NH (treatment effect p=.002, ANOVA). The proportion of patients exhibiting a 50% or greater improvement in symptoms as measured by the NPI/NH combined Agitation, Delusions, and Hallucinations items was greater for patients treated with 5 mg/day (65.5%, p=.005) or 10 mg/day (57.1%, p=.041) of olanzapine compared with placebo (35.6%). Changes in extrapyramidal side effects were not different between olanzapine-treated patients and placebo-treated patients as measured by the Simpson-Angus Scale, the Abnormal Involuntary Movement Scale, and the Barnes Akathisia Scale.

Conclusion: Results suggest that olanzapine is safe and effective compared with placebo in reducing psychosis and behavioral disturbances in patients diagnosed with Alzheimer's disease.

NR563 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Rivastigmine Improves Behavior and Reduces Tranquilizer Use

Keith R. Edwards, M.D., Neurological Consultants, P.C., 140 Hospital Drive, Bennington VT 05201; William A. Goodman, Psy.D., Richard Hartman, Ph.D.

Summary:

Objective: Many patients with Alzheimer's disease (AD) are placed in nursing homes due to unmanageable behavior. These behaviors may be disruptive to caregivers and often require administration of tranquilizers. The objective is to analyze the efficacy of rivastigmine at 12, 26, and 52 weeks in improving patient behavior, cognition, and tranquilizer use.

Methods: Forty-two nursing home patients with probable Alzheimer's disease were enrolled in an open-label study with rivastigmine. Seventeen of these patients were receiving tranquilizers prior to rivastigmine use. Mini-Mental Status (MMS), Neuropsychiatric Inventory (NPI), and psychotropic medication use were analyzed at baseline, 12, 26, and 52 weeks.

Summary: Of 17 patients receiving tranquilizers, 50% were able to be withdrawn from these medications within a period of 12 weeks and have not resumed use at 26 weeks or 52 weeks. Dosage of rivastigmine ranged from 6 to 12 mg/day.

Conclusions: (1). Rivastigmine improved behavior in these nursing home patients with AD, thereby reducing tranquilizer use. (2). This means ease of management and quality of life of the patient can be improved. (3). Rivastigmine also improved mentation in these moderate to severe AD patients. (4). This can lead to a reduction in caregiver burden and health care costs.

This study was supported by Novartis Pharmaceuticals Inc.

NR564 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Lack of Significant Drug-Drug Interactions with the Acetylcholinesterase Inhibitor Rivastigmine in Patients with Alzheimer's Disease

George T. Grossberg, M.D., Department of Psychiatry, St. Louis University, 1221 South Grand Blvd, 2nd Flr, St. Louis MO 63104-1016; Stephen Graham, Ph.D.

Summary:

Objective: To examine the safety of rivastigmine, a cholinesterase inhibitor for Alzheimer's disease (AD) currently awaiting FDA approval, relative to potential adverse drug-drug interactions.

Methods: Data from 2,459 patients on rivastigmine, in multiple-dose paradigm studies was reviewed. A total of 484 statistical analysis was conducted (Breslow-Day method) to look for clinically significant drug-drug interactions between rivastigmine and a broad range of concomitant medications frequently prescribed in the elderly including cardiovascular, anti-inflammatory, central nervous system, and antibiotic preparations, etc.

Results: Rivastigmine was not associated with any statistically/clinically significant drug-drug interactions when co-administered with a variety of frequently prescribed agents in the elderly.

Conclusions: The favorable drug-drug interaction profile of rivastigmine is in all likelihood secondary to its unique pharmacologic profile. Unlike current therapeutic agents presently available for AD (tacrine and donepezil), which are metabolized by various cytochrome P-450 isozymes and are extensively bound to plasma proteins, rivastigmine is not a substrate for the P-450 system (is hydrolyzed by acetylcholinesterase) and has only limited (40%) plasma binding. Consequently, rivastigmine is unlikely to interact with agents metabolized by the P-450 system and should not displace tightly protein bound drugs' circulation in plasma.

This study was supported by Novartis Pharmaceuticals Inc.

NR565 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Fluoxetine's Efficacy in Improving Mood, Physical and Social Impairment Symptoms Associated with Premenstrual Dysphoric Disorder

Peter J. Schmidt, M.D., Endocrinology, Nat'l Institute of Mental Hlth, 10 Center Dr., Bldg 10, 3N-238, Bethesda MD 20892; Steven J. Romano, M.D., Mary E. Nilsson, M.S., Eileen Brown, Ph.D., Cathy Shuler

Summary:

Objective: A previously reported randomized, double-blind, placebo-controlled crossover trial found fluoxetine effective in reducing PMDD symptoms. Data from this study were analyzed to assess fluoxetine's efficacy across three symptom clusters: mood, physical, and social impairment.

Methods: Nineteen patients who met diagnostic criteria for PMDD were randomized to receive flexibly dosed fluoxetine 20-60 mg/day and placebo, each for three consecutive menstrual cycles. A one-cycle wash-out preceded the crossover. Mood, physical symptoms, and social impairment were assessed by Visual Analogue Scales (VAS), Daily Ratings Form, and Premenstrual Tension Syndrome scales (PMTS, both patient- and clinician-rated). Outcome measures included average within-cycle changes from follicular to luteal phase and average luteal phase scores.

Results: At baseline, all patients had significant increases in symptomatology from follicular to luteal phase. During fluoxetine treatment, patients demonstrated significantly smaller mean increases from follicular to luteal phase than during placebo treatment in VAS Mood-4 subtotal (mood swings, depression, irritability, anxiety; p=.002), VAS Physical Symptoms subtotal (breast pain, bloating, physical discomfort; p<.001), and VAS Social Impairment subtotal (work efficiency, social activity; p=.002). Significant improvement occurred in the first treatment

cycle and was generally maintained during subsequent cycles. Most secondary outcome measures confirmed these findings.

Conclusion: Fluoxetine was superior to placebo in improving a spectrum of PMDD pathology including mood, physical, and social impairment symptoms.

Research funded by Eli Lilly and Company.

NR566 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Serotonin-Induced Allopregnanolone Levels in Women with PMS

Natalia L. Rasgon, M.D., Department of Psychiatry, UCLA University, 300 UCLA Medical Plaza, #2200, Los Angeles CA 90095; Giovanni Biggio, M.D., Mariangela Serra, Ph.D., Andrea Rapkin, M.D.

Summary:

Objective: To evaluate the allopregnanolone responses to an i/v L-tryptophan (LTP) challenge across the menstrual cycle in women with premenstrual syndrome (PMS) and in controls.

Method: An i/v LTP was administered eight times during one month to five subjects with prospectively documented PMS and five age- and body-mass-matched controls. L-tryptophan was infused i/v over 20 minutes. Progesterone (P), allopregnanolone (AP) levels, and AP/P ratio were assessed at the baseline (T-15, and T-0) and at 30, 60, and 90 minutes after the challenge.

Results: Baseline and L-tryptophan-induced allopregnanolone responses were significantly higher in PMS subjects in the luteal phase of the menstrual cycle compared with healthy volunteers.

Conclusions: Data provide evidence for the interaction between 5-HT and progesterone metabolites in women with PMS.

NR567 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Impact of Premenstrual Symptoms on Functioning and Treatment Seeking: Experience from the United States, United Kingdom and France

Timothy R. Hylan, Ph.D., Health Economics, Eli Lilly and Company, Lilly Corporate Center/DC 2032, Indianapolis IN 46285; Karen Sundell, B.S., Rajinder A. Judge, M.D.

Summary:

Objective: Up to 80% of women experience mood and physical symptoms associated with the menstrual cycle. We assessed impact of premenstrual symptomatology on functioning and treatment-seeking behavior for a sample of women in the United States, United Kingdom, and France.

Methods: A sample of 1,045 menstruating women completed a telephone questionnaire that measured premenstrual symptoms, impact on functioning, and treatment-seeking behavior.

Results: Results were generally consistent across the three countries. Irritability/anger, fatigue, physical swelling/bloating or weight gain were among the most commonly reported symptoms (80%). Functional impairment tended to be highest in the home. Among working women, >50% reported at least somewhat affected occupational functioning. Almost three-fourths of women had never sought treatment; symptom severity was an important factor in treatment-seeking behavior. Treatment with SSRIs, which have demonstrated efficacy within this population, occurred with surprisingly low frequency.

Conclusion: The functional impairment of premenstrual symptomatology (home, social, occupational) and associated treatment-seeking behavior appear consistent across countries. Women with more severe symptoms experience more impairment and are more likely to believe that no treatment is available, suggesting significant unmet medical need in this more severely affected population. Clinical identification and increasing awareness regarding the efficacy of SSRIs in treating premenstrual symptomatology may benefit these individuals.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR568 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Comparing Fluoxetine's Efficacy in Premenstrual Dysphoric Disorder Symptoms

Eileen Brown, Ph.D., Neuroscience, Eli Lilly and Company, 3880 Ridge Road, Nederland CO 80466; Steven J. Romano, M.D., Teri B. Pearlstein, M.D., Peter J. Schmidt, M.D., Meir Steiner, M.D.

Summary:

Objective: A number of controlled trials have established fluoxetine's efficacy in treating PMDD. To evaluate fluoxetine's efficacy across three clinical trials differing in design and outcome measures, effect size (a unitless measure of the difference in treatment means divided by estimated standard deviation) was calculated. Effect sizes of 0.5 and 0.8 are considered medium and large, respectively (Cohen, 1988).

Methods: Two studies used parallel designs comparing fluoxetine with placebo (one included a bupropion group). The third used a crossover design where patients received both fluoxetine and placebo. Diagnostic scales captured the salient mood, physical, and social impairment symptoms of PMDD. Primary outcome measure in the crossover study was average within-cycle change in score from follicular to luteal phase; the other two studies used change from mean baseline luteal phase scores to mean treatment luteal phase scores.

Results: Effect sizes for mood symptoms ranged from 0.6-1.2 across the three studies; for physical symptoms from 0.4-1.2 (two studies); and for social impairment 0.5-1.2. Effect sizes for total scores ranged from 0.5-1.4.

Conclusion: Medium to large effect sizes were seen with fluoxetine across three different clinical trials. Although different designs and outcome measures limit comparability across studies, calculated effect sizes support fluoxetine's efficacy in PMDD.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR569 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Fluoxetine's Efficacy in Improving Premenstrual Dysphoric Disorder

Meir Steiner, M.D., Department of Psychiatry, McMaster University, 50 Charlton Ave E/St.Joseph's, Hamilton, ONT L8N 4A6, Canada; Steven J. Romano, M.D., Susan Babcock, M.S., Susan D. McCray, Julia Dillon, Pharm-D.

Summary:

Objective: Fluoxetine's efficacy and safety in treating premenstrual dysphoric disorder (PMDD) has been demonstrated in controlled clinical studies. Data from a previously reported multisite, placebo-controlled trial were further analyzed to evaluate fluoxetine's effect on specific PMDD symptom clusters: mood, physical symptoms, and social impairment.

Methods: Women (n=320) who met diagnostic criteria for late luteal phase dysphoric disorder (LLPDD) were randomized to receive fluoxetine 20 or 60 mg/day or placebo. Mood symptoms

were assessed by Visual Analog Scale (VAS) Mood-3 and Mood-4 Averages and mood subtotals on Premenstrual Tension Syndrome scales (PMTS). Physical symptoms were assessed by VAS Physical Average, VAS individual physical items, PMTS Physical Symptoms subtotals. Social impairment was assessed by the PMTS Social Impairment subtotal. Outcome measures included luteal phase change from mean baseline to mean treatment.

Results: Both fluoxetine treatment groups demonstrated greater improvement than placebo on VAS Mood-3 Average, (both treatment comparisons, $p<.001$), but showed no statistical difference from each other ($p=.232$). Similar results were demonstrated for VAS Mood-4 Average and PMTS Mood subtotals. Fluoxetine treatment significantly improved physical symptoms compared with placebo on VAS Physical Average, VAS physical individual items, and PMTS Physical Symptoms subtotals (all scales but headache, both treatment comparisons $p<.05$). Improvement was also significant for both fluoxetine groups on PMTS Social Impairment subtotal scores ($p<.05$).

Conclusions: Fluoxetine demonstrated efficacy in three important dimensions of PMDD pathology: mood, physical symptoms, and social impairment.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR570 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Sertraline Treatment of Premenstrual Dysphoric Disorder: A Review of Controlled Literature

Kimberly A. Yonkers, M.D., Department of Psychiatry, UT Southwestern Medical Center, 5959 Harry Hines Blvd, # 520, Dallas TX 75235-9070; Ellen W. Freeman, Ph.D., C. Neill Epperson, M.D., Donna M. Jermain, Ph.D., Uriel Halbreich, M.D., Richard L. O'Sullivan, M.D.

Summary:

Objective: Premenstrual dysphoric disorder (PMDD) affects 3%-5% of menstruating women. Although there are reports of various pharmacological treatments for PMDD, few meet rigorous methodological standards, including appropriate controls, diagnostic assessment using prospective daily symptom ratings, and clearly defined validated outcome measures. Furthermore, it is of clinical importance, considering the cyclical presentation of symptoms, to determine if luteal phase only dosing with a medication with a half-life of approximately 24 hours is an effective, well-tolerated strategy. Finally, because serotonergic dysregulation is associated with PMDD and the overlap of PMDD with other mood and anxiety disorders is common, comparator studies of SSRI with non-SSRI antidepressants are important in order to optimize clinical treatment of PMDD. We conducted a review of sertraline studies of PMDD that addressed these clinically relevant variables.

Methods: Review of six (placebo, comparator, or luteal phase only dosing) controlled sertraline treatment studies of PMDD that incorporated prospective ratings and validated rating scales.

Results: Data from placebo-controlled, continuous, and luteal phase only dosing treatment studies demonstrated significant efficacy of sertraline treatment of PMDD compared with placebo. In addition, a large, placebo-controlled comparator study vs. desipramine demonstrated significant efficacy of sertraline. Luteal compared to full-cycle dosing demonstrated comparable efficacy and significant improvement compared with baseline.

Conclusions: Controlled studies using rigorous methodology indicate efficacy and tolerability of sertraline in PMDD treatment in both full and luteal phase dosing strategies. These studies are discussed regarding maximizing treatment benefits for women with PMDD.

Research funded by Pfizer, Inc.

NR571 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Strategies of Shared Mental Health Care Implementation Between General Practitioners and Psychiatrists

Ricardo J.M. Lucena, M.D., Department of Psychiatry, University of Montreal, 450 Sherbrooke Est, #809, Montreal QC H2L 1J8, Canada; Alain D. Lesage, M.D., Claude Beaudoin, M.D., Jean Maren

Summary:

The purpose of our exploratory study is to identify the strategies of shared mental health care implementation between general practitioners and psychiatrists. The data were collected from a purposefully selected sample of five general practitioners and five psychiatrists. Ten individual in-depth interviews and one focus-group session were conducted. The data treatment process consisted of discourse analysis and was guided by a pre-established coding system, which showed 98% and 87% intra/intercoder reliability, respectively. The results suggest three broad inter-twined strategies: 1) improving communication, 2) building educational linkages between general practitioners and psychiatrists, and 3) developing alternate methods of remuneration to support shared care activities. The first two strategies are local-based, simple, and rapid to implement; they bring rich dividends to all concerned. The last one is fundamental and requires long-term complex changes in order to be achieved. However, the current discussions in Canada and Quebec between governments and physicians' associations concerning capitation payments for GPs and a vacation payment system for specialists could pave the way to resolve, in the near future, the financial barriers to better shared mental health care.

Acknowledgments: CRFS (Centre de recherche Fernand-Seguin) CAPES (Ministério da Educação, Brasil)

NR572 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Cognitive Variables Influencing Compliance in a Post-Discharge Population

Geetha Jayaram, M.D., Department of Psychiatry, Johns Hopkins Univ Sch. of Med, 600 North Wolf Street, M-101, Baltimore MD 21287; Manjula Ramareddy, M.A.

Summary:

Studies of patient relapses do not include a critical analysis of cognitive requisites for adherence to medication regimens. The role of attention, memory, information processing affecting compliance in chronic patients is not demonstrated. Ninety consented severely mentally ill patients meeting study inclusion criteria completed a neuropsychological battery of tests. Four to six months after discharge, we reached and interviewed 55 of 90 patients using a compliance questionnaire. The questionnaire included demographic data, compliance outcome measures such as knowledge of and adhesion to medications, appointments, and recidivism.

Outcome measures were correlated with measures of verbal learning, recall, reading, comprehension, full-scale IQ, psychopathology and functional ability. Both parametric and non-parametric tests were used to analyze data. Among significant cognitive variables influencing outcome were: gender, full-scale

IQ, type of instructional material provided, employment status, attention and cognitive flexibility, visual learning and recall.

NR573 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Needs of People with Schizophrenia in Barcelona

Josep Haro, M.D., CSM Gava, 13-15 Sarria Street, Barcelona 08850, Spain; Manuel M. Marquez, M.D., Enric Vicens, M.D., Susana Araya, M.D., Susana Ochoa, B.Sc., Jaume Autonell, M.D., Josep Ramos, M.D.

Introduction: Barcelona (Catalonia, Spain) has a network of public mental health services that includes mental health care centers, day centers, days hospitals, and psychiatric hospitals.

Summary:

Objective: To describe and quantify the needs of the people with schizophrenia in Barcelona and the factors associated with the presence of unmet needs.

Method: Two-hundred and thirty-nine patients with schizophrenia (DSM-IV criteria) were selected randomly from the people that received psychiatric treatment during a six-month period in the five mental health care centers that participated in the study. Subjects were evaluated with the Camberwell Assessment of Need questionnaire (the CAN measures 22 areas of need), the PANSS, the Living Skills Profile, and the Spanish version of the Client Service Receipt Inventory.

Results: Patients had a mean of 6.6 (sd 3.1) needs and 1.8 (sd 1.9) unmet needs. Most unmet needs refer to social aspects (company, marital relationships, sexuality, activities of daily living). A linear regression model showed that being male, living with others, and psychiatric symptoms were associated with a higher number of needs.

Conclusions: Health and social services and families meet most of the detected needs of people with severe mental disorders. However, improvement is required in the coverage of the social needs.

NR574 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Crisis Help Line: Road Towards Preventive Psychiatry

Amresh Shrivastava Kumar, M.D., Silver Mind Hospital, Shivkripa, Gokhale Rd Naupada, Thane Mumba 400602, India; Gopa Sakel, M.A., Sunita Iyer, M.A., Chitra Kelkar, M.A., Sangeeta Rao, M.A.

Summary:

Objective: Preventive psychiatry demands patient be seen at earliest. Present study attempts to evaluate utility of crisis help line in Indian Metropolis Mumbai from preventive perspective.

Method: Naturalistic, health service research was designed for emotional first aid using a telephone help line, widely advertised in the city and supported by walk-in counseling center. Two years prospective data analyzed. Findings and implications are discussed.

Result: 7,450 calls were recorded in first two-year period; 944 patients reported in walking center. While 4.3% (n=41) were hospitalized as emergency, 5.6% (n=53) who needed admission refused. 569 (60%) patients were assessed and treated in outpatient. 165 patients (male 59%, female 41%, mainly young) reported varying degree of suicidal ideation. Financial difficulties and relationship were main stressors. Clinical diagnosis suggested schizophrenia 25%, depression 17%, personality disorder 13%, and addiction 7%.

Conclusion: Significant number of psychiatric patients reported through crisis help line. Effective strategy is required to get more and more patients into treatment fold.

NR575 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Ethnic Differences in Outcome of Schizophrenia

Harold F. Doyle, M.B., Department of Psychiatry, Northwick Park Hospital, Harrow HAI 3UJ, England; Rod Holland, M.Sc.

Summary:

Objective: To determine the outcome of schizophrenia between different ethnic groups.

Method: This study was a further follow-up examination, in 1997 and 1998, after an interval of 10 years, of all those previously traced and seen in the Northwick Park Study by Professor Johnstone and colleagues in the late 1980s (sample population = 342). The sample is from a district psychiatric hospital serving a defined catchment area, and is comprised of almost 30% ethnic minorities.

Results: Over 90% of the sample were traced. The ethnic minority populations, especially the Asian and less so the black population, displayed a poorer outcome compared with the white population. This outcome was exhibited by significantly higher scores on measures of positive symptoms ($p < 0.05$). Additionally, measures of cognitive and of social functioning also revealed a poorer outcome among the minority population ($p < 0.05$). Amongst the Asian population there was significantly less time spent in hospital over the follow-up period ($p < 0.05$). Contact with professionals showed no differences between the different ethnic groups.

Conclusions: The ethnic minority groups were shown to have a poorer long-term outcome for schizophrenia. Possible reasons for these differences are explored, including the relevance of the stigma of mental illness amongst different cultures and the acceptability of services to minorities in addition to the stressors experienced by ethnic minorities.

Funding source: Department of Health, England.

NR576 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Delinquency and Marijuana Use in Colombian Youth

David W. Brook, M.D., Community Medical, Mt. Sinai School of Medicine, One Gustave Levy Pl/Box 1044A, New York NY 10029; Judith S. Brook, Ed.D.

Summary:

Our study examined risk and protective factors related to adolescent delinquency and marijuana use. In each of the domains of culture/ecology, peer, family, and personality, we sought to identify those factors associated with both problem behaviors and those more related to either delinquency or marijuana use. In addition, we studied the protective role of parent-child mutual attachment in relation to the adolescent's problem behaviors. Our sample consisted of 2,837 adolescents, ages 12-17, randomly selected from three major cities in Colombia, South America. These sites were chosen due to their endemic levels of violence and prevalence of drugs. Independent variables consisted of risk and protective factors in each of the four domains. The dependent variables were adolescent delinquency and marijuana use. Data were collected via structured interviews and self-report questionnaires. All risk and protective factors in each domain were generally related to both problem behaviors; several factors were differentially more associated with delinquency, and a few, with marijuana use. Parent-child mutual attachment appeared to

play a protective role in these behaviors, as it was associated with both lessened delinquency and marijuana use and the mitigation of some risk factors. These findings suggest intervention strategies for at-risk Colombian youths.

NR577 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Prevalence of Psychiatric Disorders Among Native Hawaiian and Non-Hawaiian Adolescents in Hawaii

Linda B. Nahulu, M.D., Department of Psychiatry, University of Hawaii, 1356 Lusitana Street, 4th Flr, Honolulu HI 96813; Noelle Y.C. Yuen, M.D., George K. Makini, Jr., M.D., Earl Hishinuma, Ph.D., Robin Miyamoto, Ph.D.

Summary:

Objective: To examine the prevalence of psychiatric disorders among a community sample of Native Hawaiian and non-Hawaiian adolescents in Hawaii, using DSM-III-R criteria.

Method: As part of a larger study, Native Hawaiian (n=356) and non-Hawaiian (n=256) youths in grades 9 through 12 were administered the Diagnostic Interview Schedule for Children (DISC) Version 2.3, a structured diagnostic instrument. During a four-year period, the DISC was administered to the students in a private setting within the schools, by trained lay interviewers.

Results: The findings indicate that Native Hawaiians had significantly higher rates than non-Hawaiians of mood disorders, anxiety disorders, and having at least one DISC disorder.

Conclusions: These data suggest that, compared with non-Hawaiian adolescents in Hawaii and also nationally, Native Hawaiian adolescents present with increased psychiatric symptoms, which require appropriate treatment and furthermore, would benefit from additional research.

This study was supported in part by grants from the NIMH (R24-MH50151-03) as well as funds granted through a private foundation.

NR578 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Acculturation and Disordered Eating in Fiji

Anne E. Becker, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC-725, Boston MA 02114; Rebecca A. Burwell, B.A.

Summary:

Objective: Eating disorders are relatively more common in Westernized, industrialized societies, suggesting the relevance of sociocultural context to etiology. However, few studies have used survey and ethnographic methods to assess the development of disordered eating in the presence of acculturative forces in developing societies. The purpose of this prospective, longitudinal study was to assess whether the risk of disordered eating increased among Fijian schoolgirls after the introduction of broadcast television to Fiji in 1995.

Methods: A cohort of ethnic Fijian adolescent schoolgirls was recruited from two Fijian secondary schools for participation in 1995 when television was first introduced (n=62) and again in 1998 (n=65). Subjects responded to the modified 26-item Eating Attitudes Test and a subset also responded to semistructured, open-ended interview questions.

Results: Ethnographic interview data revealed that the introduction of television was explicitly associated with a greater tendency to be self-reflective about one's body in this sample. Moreover, the prevalence of self-induced vomiting for weight control significantly increased from 3% in 1995 to 23% in 1998 ($p < 0.004$).

Conclusions: Data suggest that the prevalence of disordered eating is increasing among Fijian female adolescents and that this may be associated with the introduction of Western television programming.

NR579 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Ethnic Variance in the Treatment of Acute Mania

Dale A. D'Mello, M.D., Department of Psychiatry, Michigan State University, 1210 W Saginaw/St. Lawrence, Lansing MI 48915; David E. Lyon, B.S.

Summary:

Despite the universality of bipolar affective disorder, ethnic differences have been reported in the clinical manifestations of mania and in lithium pharmacokinetics.

Objective: The purpose of the present study was to examine ethnic differences in the pharmacotherapy of acute mania.

Method: The authors completed a naturalistic retrospective review of the records of 91 patients who were hospitalized with acute mania. They abstracted demographic data and discharge pharmacotherapy.

Results: Of the 91 patients, 69 (76%) were European American and 17 (19%) were African American in origin. The majority of the patients (91%) required combinations of psychotropic drugs. Nearly half (47%) of the African-American patients required two mood stabilizers, compared with 10% of the European-American patients ($z=2.94$, $p<0.05$). There were no ethnic differences in the utilization of antipsychotics. The African-American patients received higher doses of lithium and divalproex sodium.

Discussion: In the present study, African-American patients with acute bipolar mania were five times more likely to receive mood stabilizer combinations than their European-American counterparts. Ethnic and racial factors may play a more relevant role in psychotropic response than is currently appreciated.

NR580 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Cultural Factors and Mental Health of College Athletes

Barney E. Miller, Ph.D., Department of Psychiatry, East TN State University, Box 70421, Johnson City TN 37614; Merry N. Miller, M.D., Susan Hosler, Ruth Verhegge, R.D., Curtis D. Kauffmann, M.D., Herbert Vance, Ph.D., Andres J. Pumariega, M.D.

Summary:

During an annual physical health screen we administered a series of questionnaires to college athletes. Our goal was to provide mental health screening services (with identification and follow-up free consultation for all "at-risk" persons) to our athletes. All the athletes (n=273) were asked to complete each of the following: the Beck Depression Inventory (BDI), the Eating Attitudes Test (EAT40), the Symptom Checklist 90 (SCL90), Dietary Supplement Survey, and a general demographic and lifestyles questionnaire. The BDI, EAT40, and SCL90 results were then compared with the demographic information. One of our research interests in this group was in the role of Appalachian cultural heritage (born or raised for >80% of their life in the immediate vicinity of the Appalachian Mountain range). Comparisons of the Appalachian vs. the non-Appalachian groups showed a significant difference in BDI scores for females ($p<0.05$). The males showed no such difference in the BDI but they did show differences in SCL90 subscales for Somatization and Phobic anxiety ($p=0.02$ for each). There were no differences in the EAT40 (or subscales) based on Appalachian heritage.

These data, analyses, and other differences will be reported with this presentation.

NR581 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Depression and the Risk of Alzheimer's Disease

Miriam I. Geerlings, M.Sc., Emgo Institute, Vrije University, Fac Scw De Boelelaan 1081C, Amsterdam 1081HV, The Netherlands; Robert A. Schoevers, M.D., Aartjan T.F. Beekman, Ph.D., Cees Jonker, Ph.D., Ben Schmand, Ph.D., Lex M. Bouter, Ph.D., Willem Van Tilburg, M.D.

Summary:

Objective: The objective of this study was to investigate whether depressed elderly individuals with normal cognitive functioning were at increased risk of developing Alzheimer's disease (AD).

Method: In the community-based Amsterdam Study of the Elderly (AMSTEL), a sample of 3,147 nondemented persons with normal cognition, aged 65 to 84 years, was selected. At baseline, the presence or absence of depression was assessed. At follow-up, incident cases of AD were diagnosed according to DSM-IV criteria in a two-step procedure.

Results: At baseline 329 persons (10.5%) were depressed, of whom 261 (79.6%) reported no history or a late-onset history of psychiatric illness. Depressed subjects complained more often about their memory than nondepressed subjects. After an average of 3.2 years, 1,911 persons were re-evaluated, of whom 53 had incident AD. Multivariate logistic regression analyses showed that depressed persons with > 8 years of education had a substantially increased risk of developing AD (odds ratio adjusted for age, sex, memory complaints, and psychiatric history: 5.31: 95% CI 1.88-15.00). whereas no significant association was found in depressed persons with ≤ 8 years of education (adjusted OR 0.63; 95%. CT 0.18-2.19).

Conclusion: The findings suggest that in a subgroup of more highly educated older persons depression may appear as an early symptom of AD before cognitive symptoms become apparent.

The Amsterdam Study of the Elderly (AMSTEL) is supported by a grant from The Netherlands Health Research Promotion Programme (SGO) and the National Fund for Mental Health (NFGV).

NR582 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Epidemiology of Nosocomial Infections in a Representative Israeli Psychiatric Hospital

Alex Aviv, M.D., 6B, Abrabanel M.H.C., 5 Ruth Street,Tel-Aviv 64372, Israel; Adi Enoch-Levy, M.D., Yoram Barak, M.D., Robert Kimhi, M.D., Avner Elizur, M.D.

Summary:

Objective: To conduct an innovative and primary analysis of the epidemiology of nosocomial infections in a psychiatric hospital in Israel.

Methods: A retrospective analysis of the microbiology laboratory data collected during a period of three years was performed in Israel's largest academic psychiatric hospital, containing 520 inpatient beds, serving an urban catchment area of 800,000 subjects. A total of 1097 positive bacterial cultures, obtained from hospitalized patients, were coded according to type of ward, culture origin, type of bacterium isolated, and its sensitivity to antibiotics.

Results: The most frequent infections were of the urinary tract (UTI), which accounted for 84.1% of all positive cultures. The majority of these cultures (43.4%) were obtained from patients admitted to acute wards, followed by cultures from psychogeriatric wards (28.7%). E. coli was the most common cultured pathogen (44.3%). Pathogens isolated from patients admitted to active (acute and chronic) wards were significantly more resistant to most antibiotics compared with those isolated from psychogeriatric and medicine wards.

Conclusions: While the most infected were in the acute wards, the resistance rate to antibiotics was highest in the psychogeriatric and medicine wards. Preventive measures are called for in order to reduce the prevalence of nosocomial infections and avoid bacterial resistance.

NR583 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Survey of American Medical Association and National Medical Association Members: Blood Pressure Levels

F.M. Baker, M.D., Department of Psychiatry, University of Hawaii, 45-710 Keaahala Road, Kaneohe HI 96744; Earl Hishinuma, Ph.D.

Summary:

Members (181) of the Indianapolis chapter of the American Medical Association (AMA) and the members (85) of the National Medical Association (NMA) received a mailed survey, which assessed their plans and preparation for retirement and their current health status. Fifty-seven percent (N=102) of AMA members responded and 62% (N=53) of NMA members responded. The mean age of AMA members was 60 and of NMA members was 49. There were fewer women in the AMA sample (N=5; 5%) compared with the NMA sample (N=26; 49%);p=0.000. Normotensive blood pressure was defined as systolic blood pressures of 100-150mmHg and diastolic blood pressures of 60-85mmHg. Thirty percent of NMA members (N=14) compared with 13% (N=12) of NMA members reported diastolic blood pressures that were elevated above this norm, indicating an increased risk for hypertension (p=0.03). Only one NMA member reported a systolic blood pressure above 150mmHg (i.e. 160mmHg). When age was held constant in a regression equation, ethnicity (being African American) became a significant predictor of a higher systolic blood pressure (F Value =24.099; p=0.0001). These data support and expand the earlier studies of African-American medical students at Meharry Medical College, which found a higher rate of essential hypertension, undiagnosed, in these medical students.

Funding: Institute of Psychiatric Research, Indiana University School of Medicine.

NR584 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
SSRI Effect on Seizure Parameters in ECT

Yiannis G. Papakostas, M.D., Department of Psychiatry, Athens University, 72-74 Vas Sophias Avenue, Athens 11528, Greece; Manolis Markianos, Ph.D., Iannis M. Zervas, M.D., Maria Theodoropoulou, M.D., Michael Daras, M.D., Nicholas Vaidakis, M.D.

Summary:

Objective: Administration of electroconvulsive therapy (ECT) in a patient receiving selective serotonin reuptake inhibitors (SSRIs) is frequently the case in current practice and it is impor-

tant to know, both from a theoretical and a clinical standpoint, whether these antidepressants have an effect on seizure duration. Since existing literature is controversial we investigated the effect of citalopram, the most selective SSRI in the European market, on the duration of seizures and prolactin secretion induced by ECT.

Method: In a double-blind crossover design nine female patients with major depression, for whom ECT was decided as the treatment of choice on clinical grounds and who received no psychotropic medications, were given 20 mg citalopram or placebo per os two hours before their third and fourth ECT sessions. Charge was delivered at 50% above threshhold, determined by a titration procedure during the first ECT session. Seizure duration was assessed both by cuff and EEG, while blood for prolactin assessment was sampled immediately pre-ECT, as well as well as 5, 10, 20, 30, 40, and 60 minutes post-ECT.

Results: Seizure duration did not differ between citalopram and placebo ECT sessions, although there was a trend for increase in the drug session. Plasma prolactin levels did not differ between drug and placebo, whether pre-ECT or post-ECT.

Conclusions: Citalopram pre-treatment had no effect either on seizure time or on prolactin secretion during ECT. Since healthy volunteers are known to exhibit a prolactin response to citalopram administration, absence of this response prior to ECT in our sample may be due to the possible deficiency of the serotonin system in depression.

NR585 Wednesday, May 19, 3:00 p.m.-5:00 p.m. ECT in Schizophrenia

Worrawat Chanpattana, M.D., Department of Psychiatry, Srinakarinwiroth University, Vajira Hospital, Samsen Dusit, Bangkok 10300, Thailand; Somchai Chakrabhand, M.D., Harold A. Sackeim, Ph.D., Pisarn Techakasem, M.D.

Summary:

Objective: This study compared the efficacy of different stimulus intensity of bilateral ECT in schizophrenia.

Methods: This double-blind comparative study examined the effects of three different electrical stimulus dosages: dose at, two-fold, and four-fold, the seizure threshold. Eighty-eight schizophrenic patients received acute treatment with bilateral ECT and flupenthixol (12-24 mg/day). Assessments of outcome included the Brief Psychiatric Rating Scale (BPRS), Global Assessment of Functioning (GAF), and the Mini Mental State Exam (VIMSE).

Results: Forty-six patients met remitter criteria, including clinical stability over a three-week stabilization period. The low-dose group (n=18) received more ECT treatments and spent more days to meet remitter status than both the two-fold (n=17) and the four-fold groups (n=11). There were no significant differences in cognitive status as assessed by MMSE among these three groups.

Conclusions: Treatment with high-dose bilateral ECT speeds clinical response in schizophrenic patients. The more appropriate battery tests for cognitive functions should be used in future research.

NR586 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Two Different Subtypes of Pain Disorders in DSM-IV

Martin Aigner, M.D., Department of Psychiatry, University of Vienna, Waehringer Guertel 18-20, Vienna 1090, Austria; Bettina Bankier, M.D., Anna Spacek, M.D., Sandra Krones, Michael Bach, M.D.

Summary:

Objective: The formulation of a distinct psychiatric entity for pain conditions may improve the consideration of psychosocial factors in the pathogenesis and clinical cause of pain. Pain is seen as a psychophysical process on a continuum between general medical factors and psychological factors. In the DSM-IV there are two different subtypes of pain disorder: pain disorder associated with both psychological factors and a general medical condition (code: 307.89) and pain disorder associated with psychological factors (code: 307.80).

Method: In this study, the distinctive validity of the DSM-IV criteria for pain disorder was investigated within a consecutive sample of 90 chronic pain patients aged 18 to 65 using the SKID-I for DSM-IV. In this sample, 65.6% (n=59) fulfilled the diagnostic criteria for DSM-IV pain disorder. Only 54.2% of the patients with DSM-IV pain disorder had no comorbid psychiatric disorder.

Results: Apart from the presence or absence of a general medical condition, there was no significant difference found between pain disorder associated with both psychological factors and a general medical condition (code: 307.89) and pain disorder associated with psychological factors (code: 307.80) with regard to pain duration, pain intensity, type of pain, level of disability, and educational level.

Conclusion: With regard to our data, the distinctive validity of different subtypes of pain disorder, as provided by DSM-IV, awaits further clarification.

NR587 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Bupropion SR with Phentermine for Weight Reduction

Paul S. Bradley, Candler Medical, 340 Eisenhower Drive, Ste 1200, Savannah GA 31405; Ray R. Maddox, P.H.R., Wanda K. North, B.S.N.

Summary:

Objectives: To evaluate the efficacy and safety of phentermine with bupropion for weight reduction and to evaluate changes in mood and/or subclinical depression as assessed by the Beck Depression Inventory (BDI) in treated obese patients.

Methods: Forty-four (44) outpatients with an adjusted BMI >30 kg/m^2 were enrolled in a physician managed weight reduction program. Each was randomly assigned to receive either phentermine 30mg plus placebo (21 patients) or phentermine 30mg plus bupropion SR 150mg twice a day (23 patients) in a double-blind fashion. Patients were followed for six months on a 1200 calorie ADA diet with office visits every three weeks. BDI scores, side effects, and weight loss were evaluated.

Results: There were no differences between the groups in demographic or laboratory parameters measured in the study. Weight loss exceeded 12% and was not different between the groups. BDI scores showed a greater improvement among those taking bupropion. No serious complications or side effects were seen in either group.

Conclusions: Bupropion may be a useful and well-tolerated adjuvant to phentermine in obese patients who exhibit mood changes and/or subclinical depression. However, it did not enhance weight loss in patients receiving phentermine and on a 1200 calorie diet.

Funded by a grant from GlaxoWellcome.

NR588 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Risk for Eating Disorders in an Athletic Program

Andres J Purnariega, M.D., Department of Psychiatry, East Tennessee State Univ, 107 Hillrise Hall/PO Box 70567, Jonhson City TN 37614; Merry N. Miller, M.D., Barney E. Miller, Ph.D., Ruth Verheege, R.D., Herbert Vance, Ph.D., Susan Hostler, Curtis D. Kauffmann, M.D.

Summary:

The literature on eating disorders has suggested that young adult athletes, especially female athletes, are at increased risk for eating disorders. Performance and competitive pressures, weight limits, emphasis on fitness and nutrition, and increased emphasis on body image have been cited as significant contributing factors. Few studies so far have systematically evaluated a cohort of college athletes for risk for eating disorders. We evaluated 260 college athletes (89 females and 171 males) in a mid-size regional university athletic program, approximately 80% of the total varsity sports athletes, participating in male baseball, basketball, football, golf, tennis, track, and cheerleading; and female basketball, golf, soccer, tennis, track, volleyball, and cheerleading. The Eating Attitudes Test, 40-item version (EAT-40) was used, with the cut-off score of 30 to differentiate individuals at high risk. Only 3.7 percent of the athletes scored above the cut-off score on the EAT-40, well below the 8% to 15% usually reported in general population studies. Mean EAT scores were not significantly different across gender (males = 12.27, females = 14.06; p = .095), but mean dieting subscale scores were (males = 2.84, females = 5.14; p < .0001). No team scored different from the mean for either males or females, with female volleyball players (mean total EAT = 17.4) and cheerleaders (mean total EAT = 16.6) coming closest to approaching significance.

Our findings suggest a much lower risk for eating disorders than found to date in other studies of high school and college athletes. Factors such as more diverse socioeconomic backgrounds and less competitive pressures at a regional university level may account for these findings.

NR589 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Decreased Platelet MAO Activity in Female Anorexia Nervosa

Marina Diaz-Marsa, M.D., Department of Psychiatry, Ramonycaja Hospital, Ctra Colmennar Km 9s, Madrid 28034, Spain; Jose Luis Carrasco, M.D., Eric Hollander, M.D., Jesus Cesar, M.D., Jeronimo Saiz-Ruiz, M.D.

Summary:

There is consistent evidence for the involvement of brain serotonin systems in the pathophysiology of eating disorders. Serotonin is metabolized by the enzyme monoamineoxidase (MAO), and lowered platelet MAO has been described as an index of brain serotonin activity. Some studies have reported lowered platelet MAO in eating disorders. However, whether this finding is associated to anorexia or to bulimia is yet uncertain.

Methods: 25 female patients with DSM-IV anorexia nervosa restricting type were studied and compared with 30 healthy female controls. Platelet MAO activity was measured by isotopic methods using C-14 benzylamine. Impulsive personality features were measured with specific rating scales and temperament studied with Cloninger's TCI.

Results: Platelet MAO activity was significantly lower (4.36 + 2.75 nmol/h/108 platelets) in the anorectic patients than in the control group (6.7, + 2.8) ($p<0.01$). Platelet MAO was inversely correlated with scores on impulsivity scales and with the number of borderline personality disorder features. No significant correlations could be demonstrated between platelet MAO and scores on impulsivity or novelty seeking scales. However, a positive significant correlation of platelet MAO with the dimension "persistence" of the Cloninger's TCI was demonstrated.

Conclusions: Platelet MAO activity is lowered in anorexia nervosa and might involve some dysfunction in the regulation of impulse control. Since platelet MAO has a predominant genetic component, further studies on the association of low platelet MAO and greater risk for developing eating disorders are needed.

NR590 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Antidepressants for Bulimia Nervosa

Josue Bacaltchuk, M.D., Department of Psychiatry, UNIFESP-EPM, Rua Casa do Ator 764 Apto 102, Sao Paulo SP 04546-003, Brazil; Phillipa Hay, M.D., Roberta P. Trefiglio, Pharm.D., Jair de Jesus Mari, M.D.

Summary:

Objectives: Compare effectiveness, tolerability, and acceptability of antidepressants with placebo, psychotherapy, or combination of antidepressants and psychotherapy in bulimia nervosa (BN).

Methods: All studies were assessed for inclusion criteria and methodological quality by two independent reviewers (k=0.8). DL relative risk (RR) was used for analysis of dichotomous outcomes. Heterogeneity in the results and publication selectivity were assessed.

Results: Four meta-analyses included 22 studies. Antidepressants showed statistically higher short-term remission rates (19% vs. 8% RR=0.88 $p<0.0001$) compared with placebo, with high dropout rates for both (30%-35%). No difference in efficacy among classes of drugs was shown. Psychotherapy was clinically superior to antidepressants: (20% vs. 39% remission rates: RR= 1.28; P=0.07), with lower dropout rates (18% vs. 40%). Combination of treatments improved efficacy of both single approaches. When antidepressants were added, acceptability of psychotherapy was reduced (dropout rates: 16% vs. 30%: RR= 0.57-1 p= 0.01).

Conclusions: Single antidepressants are effective for the treatment of BN compared with placebo. Remission rates are low and dropout rates high. Psychotherapy was clinically superior to antidepressants. Combination with antidepressants improved efficacy but reduced acceptability of single psychotherapy.

NR591 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Fluoxetine in Bulimia Following Failure of Psychotherapy

B. Timothy Walsh, M.D., Clin Psychopharmacology, NY State Psychiatric Institute, 1051 Riverside Drive, New York NY 10032-2603; W. Stewart Agras, M.D.,Michael J. Devlin, M.D., Caroline Kahn, Kristin Chally

Summary:

Objective: Two forms of treatment have established efficacy in the treatment of bulimia nervosa: structured psychological treatment, especially cognitive behavioral therapy (CBT), and antidepressant medication. The purpose of this study was to determine whether treatment with the antidepressant fluoxetine was effec-

tive for individuals with bulimia nervosa who had failed to respond to or had relapsed following psychotherapy.

Methods: Twenty-two patients with bulimia nervosa who had failed to respond to, or had relapsed following, a course of CBT or interpersonal therapy (IPT) were randomly assigned to receive placebo (n=15) or fluoxetine (60 mg/day, n=7) for eight weeks in double-blind fashion. Patient outcome was assessed using the Eating Disorders Examination.

Results: The median frequency of binge eating declined from 5.5 to 0.6 per week in the fluoxetine-treated group, but increased from 3.8 to 5.8 in the placebo group ($p<.01$). Similarly, purging frequency declined from 7.5 to 0.8 per week in the fluoxetine-treated group, but increased from 4.6 to 8.5 in the placebo group ($p<.01$).

Conclusions: These data support the clinical utility of a course of fluoxetine for patients with bulimia nervosa who have not responded adequately to psychological treatment.

Note: Supported, in part, by Eli Lilly and Company.

NR592 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Decreased Platelet MAO Activity in Female Bulimia Nervosa

Jose Luis Carrasco, M.D., Department of Psychiatry. Fundacion/Jimenez-Diaz, Avda Reyes Catolicos 2, Madrid 28040, Spain; Marina Diaz-Marsa, M.D., Eric Hollander, M.D., Jesus Cesar, M.D., Jeronimo Salz-Ruiz, M.D.

Summary:

The involvement of brain serotonin systems in the pathopsysiology of eating disorders has been repeatedly demonstrated in recent studies. Platelet MAO activity is an index of brain serotonin activity and lowered platelet MAO levels have been found in association with impulsive behaviors. In addition, some preliminary reports indicate that platelet MAO could be lowered in eating disorder patients.

Methods: 47 patients with DSM-IV eating disorders were studied, including 30 with bulimia nervosa and 17 with anorexia nervosa binge eating — purging type. Platelet MAO activity was measured by isotopic methods using C-14 benzylamine and compared with a control group of 30 healthy subjects. Impulsive personality features were studied with specific rating scales.

Results: Platelet MAO activity was significantly lower (4.4, ± 2.4 nmol/h 10^8 platelets) in the bulimic patients than in the control group (6.9, ± 2.5) ($p<0.001$). No significant differences were found between pure bulimics and binge eating-purging anorectics. Platelet MAO was inversely and significantly correlated with scores on impulsivity scales and with borderline personality disorder characteristics.

Conclusions: Platelet MAO activity is lowered in patients with bulimia, which may reflect dysfunction in impulse control mechanisms. Since platelet MAO has a predominant genetic component, there is need for studies on the association of low platelet MAO and higher risk for developing eating disorders.

NR593 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Defining Standard Care for Anorexia Nervosa: What the Consumer Seeks Out

Sophie Grigoriadis, M.D., Department of Psychiatry, Toronto Hospital, 200 Elizabeth Street, EN8-231, Toronto ON M5G 2C4, Canada; Allan S. Kaplan, M.D., Jacqui Carter, Ph.D., D. Blake Woodside, M.D.

Summary:

Purpose: To determine the kind of treatment patients with Anorexia Nervosa (AN) naturalistically seek for their eating disorder following hospitalization. Does symptom status make a difference?

Method: Twenty-four women previously treated in the Toronto Hospital inpatient unit were interviewed by telephone to determine the nature and amount of treatment received following discharge. Symptom status was evaluated using the eating disorder subsection of SCID.

Results: Mean age: 31 years (SD=9.18). Mean BMI at assessment: 19.97 A(SD=4.00). All saw at least one professional within the first 6 months following discharge (75% saw their family doctor, 46% a psychiatrist, 13% a psychologist, 29% a counselor, 21% a dietician). The group received a mean of 85 hours of treatment, of which 80 hours were spent with a psychiatrist and 12 with a family physician. Eighty-eight percent took psychotropic medication within the follow-up period (most commonly antidepressants). Symptomatic and asymptomatic patients did not differ in amount of treatment received (86 vs. 83 hours).

Conclusions: Patients, regardless of their AN symptom state, continue to use the health system heavily following weight restoration. Most common is brief ongoing contact with a family physician or supportive psychotherapy from a psychiatrist. Implications for aftercare health resources planning will be discussed.

NR594 Wednesday, May 19, 3:00 p.m.-5:00 p.m. PTSD Following Prolonged Surgical Intensive Care Unit Treatment

Frank G. Pajonk, M.D., University Hospital of Psych, Martinistr 52, Hamburg 20251, Germany; Jens C. Richter, M.D., Christian Waydhas, M.D.

Summary:

Objective: Aim of the study was to investigate whether prolonged ICU treatment could be a risk factor for developing post-traumatic stress disorder (PTSD). Trauma victims were analyzed separately.

Methods: Data from patients treated in the ICU of the department of surgery, University of Munich, for 30 days or longer were collected. The surviving patients were invited for a psychological follow-up examination after 35±14 months after discharge from the ICU. They were specifically asked for the DSM-IV criteria of PTSD, and completed a questionnaire including the SCL-90-R.

Results: 101 patients were treated for 30 consecutive days or longer in the ICU; 55 deceased primarily or in the interval; 37 patients (m/f. 28/9, mean age: 45±17 years, length of stay on the ICU: 52±20 days) were able to come to the clinic; the SCL-90-R could be performed in 33 patients. According to DSM-IV criteria, seven patients (19%) developed PTSD, but two of them had other severe psychiatric disorders. All of them had survived severe multiple trauma. Psychiatric disorders were common (n=22, 59%), predominantly substance abuse (n=14), Patients who fulfilled the criteria for PTSD had a significantly increased score in the PTSD subscale of the SCL-90-R (1.7±1.0 vs. 0.6±0.5. $p<0.01$); trauma patients had a higher score than others.

Conclusions: PTSD occurs with a considerable frequency but its attribution to either trauma or the subsequent treatment is difficult, although only trauma victims developed PTSD. However, prolonged ICU treatment is undoubtedly a severe stressor to any individual.

NR595 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Efficacy of Sildenafil Citrate in Men Taking SSRIs

H. George Nurnberg, M.D., Department of Psychiatry, University of New Mexico, 2600 Marble Avenue, NE, Albuquerque NM 87131; Alan J. Gelenberg, M.D., Tim B. Hargreave, M.D., Mike D. Smith, Ph.D., Richard L. Siegel, M.D.

Summary:

Objective: Sexual dysfunction (SD) is a common adverse event in men receiving antidepressant therapy with selective serotonin reuptake inhibitors (SSRIs) and may contribute to noncompliance with treatment regimens. SSRIs can be associated with absent or delayed orgasm, delayed ejaculation or the inability to ejaculate, decreased libido, and erectile dysfunction (ED). We evaluated whether sildenafil, approved for the treatment of ED, can alleviate the symptoms of SD in men with ED who were taking concomitant SSRIs.

Method: A retrospective analysis of combined data from 10 phase II/III double-blind, placebo-controlled, fixed- and flexible-dose trials identified a subgroup of men with ED who were receiving 5-200 mg of sildenafil (S) or placebo (P) and taking concomitant SSRIs. Analysis of efficacy (ANCOVA) included responses to question 9 (Q9; frequency of ejaculation) and question 10 (Q10; frequency of orgasm) of the International Index of Erectile Function. Each question was scored from 0 to 5, with lower scores indicating greater SD. Results are expressed as mean baseline scores (±SEM) and mean change from baseline (±SEM) at the end of treatment (six to 24 weeks).

Results:

	Subgroup	N	S (baseline)	S(change)	N
Q9:	With SSRIs	62	2.42 ± 0.23	1. 16 ± 0.25?	30
	Without SSRIs	2041	2.74 ± 0.04	0.90 ± 0.04	1112
Q10:	With SSRIs	62	2.24 ± 0.22	1.34 ± 0.27	30
	Without SSRIs	2050	2.65 ± 0.04	0.93 ± 0.04	1112
	Subgroup	**P (baseline)**		**P(change)**	**P value**
Q9:	With SSRIs	2.67 ± 0.37		0.13 ± 0.29	<0.05
	Without SSRIs	2.69 ± 0.06		0.05 ± 0.05	<0.001
Q10:	With SSRIs	2.53 ± 0.34		0.23 ± 0.37	<0.01
	Without SSRIs	2.61 ± 0.05		0.11 ± 0.05	<0.001

Conclusion: Sildenafil significantly improved the frequency of ejaculations and orgasm in patients with ED taking concomitant SSRIs.

Funded by Pfizer Inc.

NR596 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Comparing Adderall Methylphenidate in ADHD

Steven R. Pliszka, M.D., Department of Psychiatry, University of TX Hlth Sci Ctr, 7703 Floyd Curl Drive, San Antonio TX 78284; Ronald G. Browne, Ph.D., Susan K. Wynne, M.D., Rene L. Olvera, M.D.

Summary:

While Adderall has been available for the treatment of attention deficit hyperactivity disorder (ADHD), there are few controlled studies comparing it with methylphenidate. Fifty-eight (58) children with ADHD (mean age 8.1 yrs.) were randomized to receive placebo, methylphenidate, or Adderall in a double-blind fashion for a three-week trial. During week one, all subjects received only one dose in the morning. Teachers were asked to separately rate AM and PM behavior in the classroom each day of the week using the Iowa Conners Teacher Rating Scale, while parents rated evening behavior. If afternoon or evening behavior did not improve, a 12 noon or 4 PM dose was added for week 2. At the end of week 3, a psychiatrist reviewed all the data and obtained the Clinical Global Impression (CGI). Both medications were superior to placebo at reducing inattentive and hyperactive symptoms in the classroom, with Adderall showing better scores than methylphenidate for both measures ($p<0.05$). On CGI-improvement and index, both medications were greatly superior to placebo, with Adderall being superior to methylphenidate ($p<0.05$) on CGI-improvement. Side effects were not different from placebo. Sixty-five percent of Adderall subjects were dosed once-a-day, compared with 15% for methylphenidate ($p=0.0031$).

Supported by Shire Richwood Inc.

NR597 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Mirtazapine in the Treatment of Irritable Bowel Syndrome: A Pilot Study

Lars Tanum, M.D., Psychosomatic Medication, National University, Pilestredet 32, Oslo 0027, Norway; N. Moe, M.D.

Summary:

Aim: To assess efficacy and tolerability of mirtazapine (15-60 mg) in nonpsychiatric patients with irritable bowel syndrome (IBS) in an open-label, noncomparative study.

Methods: Twelve patients aged 18-60 years with a diagnosis of IBS according to Rome criteria, and with no additional somatic or psychiatric diagnosis, were included in a eight-week study with mirtazapine. Efficacy was assessed as reduction in pain and primary target symptom using patient-rated Visual Analogue Scale (daily basis) and physician-rated Clinical Global Improvement Scale at every visit. McGill Pain questionnaire was also completed at every visit, together with recording of adverse events. Response was defined as at least 50% reduction in pain on both VAS and CGI.

Results: Twelve patients were eligible for this study and 10 patients were designated as evaluable. Seven patients (70%) were classified as responders on intention to treat basis. Two patients dropped out due to adverse events. Clinical response were recorded within six days after start in all responders. After tapering of mirtazapine (weeks 9 and 12) a major relapse of symptoms was seen in 50% of the responders. Except for the two drop-outs, mirtazapine was generally well tolerated in these patients.

Conclusion: These results suggest that mirtazapine is an efficacious and well tolerated drug with a fast onset of action in patients with IBS, but this needs further confirmation.

NR598 Wednesday, May 19, 3:00 p.m.-5:00 p.m.
Sildenafil Citrate for Erectile Dysfunction and Depression

Raymond Rosen, Ph.D., Department of Psychiatry, RWJ Medical School, 675 Hoes Lane, Piscataway NJ 08854; Ridwan Shabsigh, M.D., Matthew A. Menza, M.D., Steven P. Roose, M.D., Stuart N. Seidman, M.D., Vera Stecher, M.D., Diane M. Chow

Summary:

Objectives: This study assessed the efficacy and safety of sildenafil citrate (VIAGRA®) for the treatment of erectile dysfunction (ED) in men with ED and untreated comorbid depression.

Methods: A total of 146 men with ED and depression (24-item Hamilton Depression Rating Scale score ≥12) received flexible-dose sildenafil (Sild; 25-100 mg; N = 70) or placebo (Pbo; N = 76) for 12 weeks in a randomized, double-blind clinical trial. Efficacy

was assessed at weeks 8 and 12 by responses to three global efficacy questions (GEQ1: improved erections [yes/no]; GEQ2: improved ability to have sexual intercourse [yes/no]; GEQ3: frequency of successful attempts at sexual intercourse) and to Q3 and Q4 (ability to achieve and maintain erections) of the International Index of Erectile Function (IIEF). Scores for GEQ3, Q3, and Q4 range from 0 ("did not attempt intercourse") and 1 ("almost never/never") to 5 ("almost always/ always").

Results: Efficacy scores (mean ±SEM or %yes) after 12 weeks of treatment with sildenafil were significantly improved for all variables versus placebo-treatment scores (P<0.0001).

Parameter	Baseline	Sild IN]	Pbo [NJ
GEQ3	—	3.9 (0-3) [66]	2.0 (0.3) [75]
Q3	1.6	3.7(0.3) [66]	2.2 (0.2) [76]
Q4	1.4	3.9(0.3) [66]	2.0 (0.2) [76]
Parameter	**Sild [NJ**	**Pbo [NJ**	
GEQ1 (%yes)	82% [66]	20% [75]	
GEQ2 (%yes)	83% [63]	19% [73]	

The most common adverse events (AEs) were headache (20% Sild; 6% Pbo), flushing (15% Sild; 1% Pbo), and dyspepsia (15% Sild; 0% Pbo). One patient (1.4%) discontinued Sild due to AEs; no patients discontinued Pbo.

Conclusions: Treatment with sildenafil was effective and well tolerated in men with ED and comorbid depression.

Funded by Pfizer Inc.

NR599 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Divalproex for Agitated and Aggressive Brain Injury Symptoms

Peggy E. Chatham-Showalter, M.D., Dept of Brain Injury, Good Shepherd Hospital, 3420 Walbert Avenue, Suite 100, Allentown PA 18104; Deborah N. Kimmel, M.D.

Summary:

Introduction: Patients who survive acute brain injury are a growing clinical group; most return to the community. Problematic behavioral and mood dyscontrol symptoms are labeled agitated or aggressive by their rehabilitation physicians. This largest case series to date describes Depakote (Divalproex) use for 30 patients with agitated symptoms following relatively severe brain injury and provides guidance for psychiatrists who elicit a patents history yielding a diagnosis of mood (mania) or personality disorder due to brain injury.

Methods: Chart data was abstracted retrospectively for a patient cohort (n=30) who received Depakote for agitation at this inpatient brain injury rehabilitation unit 12/96 through 9/98.

Results: All but one patient bad brain injury seen on initial CT scan. Rehabilitation length of stay was 11 to 39 days (mean 40.8). For 18 patients (60%), Depakote appeared effective approximately seven days after titrating to a typical 1500mg/day dose. A rapid response to near total recovery in 8 patients (26%) was rated on equivocal response. One patient did not respond to an adequate trial. Descriptive vignettes have been compiled to show applicability to community psychiatric practice because most patients went home, their brain injury history not apparent in casual conversation.

Conclusion: Depakote (divalproex) appears efficacious for alert, labile, impulsive, and disinhibited brain injury patients as seen in the community; these patients tend to respond to similar doses to those conventionally used on psychiatric practice.

Funding: The chart review funded by Abbott Laboratories.

NR600 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Long-Term Outcome and Its Predictors of Bipolar Disorder

Shang Ying Tsai, M.D., Department of Psychiatry, Taipei Med College Hospital, 252 Wu Hsing Street, Taipei 110, Taiwan; Chian-Jue Kuo, M.D., Chiao-Chicy Chen, M.D., Ju-Chin Lee, M.D., Eng-Kung Yeh, M.D.

Summary:

Objective: The high comorbid substance use disorders in Western bipolar patients may obscure the specificity of findings about outcome study. As low comorbidity of alcohol/drug abuse was found in Chinese bipolar patients in Taiwan, this study attempted to identify which clinical factors are associated with the long-term outcome of bipolar disorder.

Method: The bipolar patients (DSM-III-R) who had been naturalistically followed up for at least 15 years were recruited. The clinical data were obtained by a combination of chart reviews and interviews with patients and family members.

Results: We collected 101 bipolar patients. Ten of them (9.9%) have alcohol/drug problems in their lifetime. According to the LKP Scale, the overall outcome for 48% of patients was good, for 36% moderate impairment, and for 16% poor. Current age, cigarette smoking but not alcohol/drug abuse, compliance with treatment, persistence of affective symptoms, and social-economic class were associated with overall outcome. Specific areas of functioning were also rated by Strauss-Carpenter Scales. Multiple stepwise regression showed that age of onset and compliance with treatment were good predictors of outcome.

Conclusions: The overall outcome of Taiwanese bipolar patients was comparable with that of Western reports. Our findings suggest early onset and psychosocial factor, rather than comorbid substance use disorders, have the impact on the long-term outcome of bipolar disorder.

NR601 Wednesday, May 19, 3:00 p.m.-5:00 p.m. The Meta-Analysis of the Efficacy of Pharmacotherapy and Psychotherapy for PTSD

Ashley D. Wazana, M.D., Department of Psychiatry, SMBD Jewish General Hospital, 4333 Cote Ste-Catherine Road, Montreal, PQ H3T 1E4, Canada; Marta Valenzuela, Ph.D., J. Christopher Perry, M.D.

Summary:

Purpose: Post-traumatic stress disorder (PTSD) is a disorder with important prevalence, morbidity, and comorbidity as well as economic cost. The study examines the comparative efficacy of pharmacotherapy and psychotherapy.

Data sources: (1) MEDLINE search from 1966 to present using both MeSH terms and related keywords; (2) reference lists from retrieved articles; (3) reference lists from systematic reviews and books; (4) hand search of topical journals for last 10 years and (5) consultation with "key informants".

Study Selection: All studies that examined therapeutic interventions for at least six subjects with PTSD were targeted for retrieval. Studies in English, Spanish, or French, with data enabling the calculation of a within-condition effect size (ES) were retained for the analysis. A random sample of excluded studies was read to confirm that no relevant study was missed with our inclusion criteria.

Quality Assessment: Studies were assessed for their quality using a standardized scale.

Data Extraction: Data on dependent and independent variables were extracted by three authors.

Data Synthesis: Within-condition ES, with and without weighing for quality of the study, were compared at the end of active treatment and at follow-up. In addition, the impact of numerous characteristics on outcome was examined.

Results: The most frequent type of trauma type studied were (1) war-related, (2) assaults, and (3) natural disasters. All categories of antidepressants and a few anxiolytics, and neuroleptics were studied. Individual therapy was more frequently examined than group therapy, with the most common modalities being cognitive behavioral, eye movement desentization, and reprocessing (EMDR) and psychoeducational. Both psychotherapy and medications are efficacious in treating PTSD. Secondary effect analysis revealed the importance of duration of illness and treatment, the presence of comorbidity, and other variables.

NR602 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Computer-Assisted Self-Help Versus Clinician-Administered Behavior Therapy for OCD: A Multicenter, Randomized, Controlled Trial

John H. Greist, M.D., Madison Institute of Medicine, 7617 Mineral Point Rd, Ste 300, Madison WI 53717; Isaac M. Marks, M.D., Lee Baer, Ph.D., J. Richard Parkin, M.B., Peter A. Manzo, M.S.W., Julia M. Mantle, R.N., Kenneth A. Kobak, Ph.D.

Summary:

Background: This study examined the efficacy of a comprehensive, computer-administered behavioral treatment program for OCD using interactive voice response (IVR) technology. The system, called BT STEPS, makes explicit the steps involved in the behavioral treatment of OCD and includes a workbook to guide the treatment process and 12 distinct IVR telephone calls (several used repeatedly). Patients design and implement their own treatment program, with support and monitoring provided by the IVR computer program.

Method: 205 patients from eight sites were randomly assigned to receive either BT STEPS (BTS), human behavior therapy (HBT), or relaxation control (RLX). Ten weeks of active treatment followed a two-week "washout" period, consisting of pre-treatment assessment tasks. BTS and RLX patients worked independently; HBT consisted of 11 weekly sessions. All patients met with a study coordinator at the end of two, six, and 10 weeks for safety and efficacy evaluations. An intent-to-treat analysis was employed. Patients with at least one post-baseline assessment were included in the analyses (BTS N = 60; HBT N = 55; RLX N = 71).

Results: Both BTS and HBT had significantly greater Yale-Brown Obsessive Compulsive Scale change than RLX (5.35, 7.83, and 1.66, respectively), $p = .0001$, with HBT significantly greater than BTS, $p = .026$. Thirty-five percent of BTS patients were responders ("much" or "very much improved" on PGI) at endpoint by comparison with 58.2% of HBT patients, $p < .01$, and 14.1% of RLX patients, $p < .01$. Both BTS and HBT had significantly greater reductions than RLX in overall impairment as evaluated by the Work and Social Adjustment Scale, $p < .01$ for both comparisons. No significant difference was found between BTS and HBT in this regard.

Conclusions: BTS is an effective self-help treatment for OCD, and may help fill the gap in the unmet need for human behavior therapists.

NR603 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Treatment of Depression in a Women's Primary Care Clinic

Lee S. Cohen, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, WAC 815, Boston MA 02114; Hadine Joffe, M.D., Bernadette Sweeney, B.S., Heather Groninger, B.A., Karen Carlson, M.D., Jerrold F. Rosenbaum, M.D.

Summary:

Introduction: Major depression (MDD) is a highly prevalent disorder in women. Lifetime prevalence estimates range between 15%-20%. While several large studies have described the incomplete recognition and treatment of depression in the community, few have investigated the treatment of women specifically. The purpose of this study was to explore the extent to which major depression was recognized in a large outpatient women's primary care clinic located in a tertiary care hospital and to evaluate the nature and intensity of treatment received if any.

Methods: Eight hundred and nine (N= 809) women (age range 18-72) were screened for depression in a large primary care clinic using the Community Epidemiology Scale for Depression (CES-D). Women were designated as being depressed if they scored ≥ 25 on this scale. Additional demographic and reproductive history data were obtained by questionnaire as well as data regarding antidepressant treatment received (if any) by those screened and the intensity of such treatment. The percentage of women in the total sample who received antidepressant treatment and who were well (CES-D ≤ 16) was also evaluated.

Results: Approximately 10% (N=84) of the sample were noted to have scores ≥ 25 on the CES-D. However, only 30% of these women were noted to receive antidepressant treatment. Those women treated with antidepressant most often received an SSRI, though the trial was commonly inadequate with respect to dose and/or duration in over half of these patients.

Conclusions: Despite gains made with respect to enhanced recognition of MDD in the community and the availability of simplified, safe, and tolerable therapies for the disorder, MDD remains largely untreated. When treated, many depressed patients appear to receive inadequate levels of somatotherapy. The implications of these findings for women who, as a group, are at particular risk for MDD are discussed.

Research supported with a grant from Organon Inc.

NR604 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Cost-Effectiveness of Hospital and Crisis Residential Care

Wayne S. Fenton, M.D., Research, Chestnut Lodge Hospital, 500 West Montgomery Avenue, Rockville MD 208501, Loren R. Mosher, M.D., J. Hoch, M.A., Lisa B. Dixon, M.D.

Summary:

Objective: We evaluate the cost-effectiveness of a crisis residential alternative program compared to general hospital psychiatric care for voluntary patients with severe mental illness requiring acute care.

Methods: One hundred nineteen voluntary patients with serious mental illness in the Montgomery County, Maryland public mental health system who required acute care and provided consent were randomized to a crisis residential program or psychiatric unit of a general hospital. Established unit costs and service use estimates derived from medical and administrative records are used to estimate direct treatment costs from the perspective

of public payors. Admission to discharge changes in symptoms severity (PANSS) and subsequent days of community tenure represent effectiveness.

Results: Treatment costs were lower for patients treated in the crisis residential program: symptom improvement and days of community tenure were comparable for the hospital (N=50) and alternative (N=69) groups. The cost-effectiveness ratios for alternative compared to hospital care were $217 versus $264 in direct treatment costs per point of PANSS symptom improvement and $22 versus $37 in direct treatment cost per day of community tenure over six months. ICCR = $374/community day.

Conclusion: Within most mental health systems, hospital costs account for more than half of all expenditures. For patients requiring acute care who are willing to accept voluntary treatment, the crisis residential model provides a cost-effective approach to crisis stabilization.

NR605 Wednesday, May 19, 3:00 p.m.-5:00 p.m. Efficacy and Fiscal Impact of Atypical Antipsychotics in County-Wide Outpatient Managed Care Services

Douglas Del Paggio, Pharm.D., Office of the Medical Dir, Alameda Co. BHCS, 2000 Embarcadero Cove, Ste 400, Oakland CA 94606; Richard P. Singer, M.D.

Summary:

This prospective study, initiated 11/1/96, used the mirror image design to contrast costs and efficacy with the initiation of risperidone and olanzapine. The main question posed was: would these agents 1) improve symptoms, 2) reduce high cost services, and 3) reduce overall expenses even though they cost more than older, cheaper medications? Two six-month periods, prior and post atypical antipsychotic initiation, were analyzed regarding costs and services utilized. In addition, each client's psychiatrist quarterly scored the PANSS and AIMS, two symptom outcome measures. Zyprexa reduced overall costs (services and medications) by approximately $300 monthly per client, while Risperdal had a cost increase of approximately $275 monthly per client. With Zyprexa initiation, there was a dramatic drop in inpatient hospitalizations and crisis visits. The date for both agents showed increased utilization of outpatient services and vocational training. As measured by the PANSS, the overall and negative subscale scores were decreased by an average of 20%. Both agents showed an average reduction in the AIMS scores, pointing to T.D. symptom reduction. In conclusion, the study supports the use of the higher costing newer antipsychotics in a managed care setting due to their impact on resistant symptoms, client services, and overall costs.

NR606 Wednesday, May 19, 3:00 p.m.-5:00 p.m. A Negative Association of Neurotensin Receptor Gene's Polymorphism. with Schizophrenia

Yu-Sang Lee, M.D., Department of Psychiatry, Yongin Mental Hospital, 4 Sangha-Ri Kusung-Myun, Yongsin-Si Kyungsi 449-910, South Korea; Hyeong-Bae Kim, M.D., Jin-Hee Han, M.D., Jung-Sik Lee, M.D., Hyeong-Seob Kim, M.D., In-Keun Choi, M.D., Byung-Hwan Yang, M.D.

Summary:

Objective: Neurotensin (NT), of which functions are evoked by its interaction with neurotensin receptors (NTR), coexists with mesolimbic dopamine and regulates endogenous dopamine release. Recent studies have shown that NT with NTR exerts neuroleptic-like activity within the central nervous system and may play an important role in the pathogenesis and treatment of schizophrenia. We have examined the genetic association between schizophrenia and tetranucleotide repeat polymorphism in the 3'-flanking region of the NTR gene to investigate the possible contribution of the NTR gene to schizophrenia susceptibility.

Method: The subjects were 120 patients with schizophrenia and 106 normal healthy controls. They were unrelated native Koreans. Using polymerase chain reaction and polyacrylamide gel electrophoresis, tetranucleotide repeat polymorphism (CCTT and CTTT) in the 3'-flanking region of NTR gene was observed. For a comparison of NTR gene's allelic frequencies between patients with schizophrenia and normal healthy controls, χ^2 test and Bonferroni's correction were performed.

Results: The frequency of A10 allele (base pair size= 399) was significantly higher in normal healthy control subjects than in patients with schizophrenia(χ^2= 16.4902, df=I, p<.000).

Conclusion: NTR gene was negatively associated with schizophrenia. NTR gene's microsatellite repeat may provide protection against schizophrenia.

NR607 Wednesday, May 19, 3:00 p.m.-5:00 p.m. New Genetic Variants at 5-HT2B in Alcoholics

Nakao Iwata, M.D., Department of Psychiatry, Fujita Health University, 1- 93 Kutsukake-Cho, Toyoake, Aichi Al 47011, Japan; Roger L. Vallejo, Ph.D., Matti Virkkunen, M.D., Jeffrey C. Long, Ph.D., Norio Ozaki, M.D., David S. Goldman, M.D.

Summary:

Objective: Serotonin receptor genes are candidate genes for alcoholism. In humans, serotonin transporter inhibitors decrease alcohol intake. Animal experiments show serotonin involving alcohol intake behaviors. The authors' goal was to identify polymorphisms in the receptor gene (5-HT2B) and determine whether the 5-HT213 is associated with 5-HT2B alcholism.

Method: The 5-HT2B coding region were screened in 80 unrelated patients using a single strand conformational polymorphism analysis (SSCP). For rapid genotyping Polymerase Chain Reaction-Restriction Fragment Length Polymorphism (PCR-RFLP) was developed. Association study and linkage analysis were evaluated in Finnish alcoholics and healthy volunteers.

Results: Four conservative amino acid substitution and polymorphisms involving synonymous DNA substitution in the 5-HT2B coding region were determined by SSCP method. By association analysis, the 165 Finnish alcoholics had a higher HTR2B-W388 allele frequency than 167 controls (P=0.035). In sib pairs, there is no linkage between R388W and alcoholism.

Conclusions: Four naturally occurring variants were determined in the 5-HT2B. The variants are not associated with alcoholism.

NR608 Wednesday, May 19, 3:00 p.m.-5:00 p.m. TDT Analysis of HTRIDB Receptor Gene in OCD Trios

Fariba Sam, B.Sc., Depart of Neurogenetics, University of Toronto, Clarke Inst 250 College St, Toronto ON M5T 1R8, Canada; Margaret A. Richter, M.D., Andrew Paterson, M.B., Karyn E. Hood, M.Ed. James L. Kennedy, M.D.

Summary:

Objectives: Obsessive-compulsive disorder (OCD) is a common and severe psychiatric illness, with considerable evidence supporting a genetic component in the etiology. The serotonin

reuptake inhibitors are widely used in the treatment of OCD, which suggests the involvement of the serotonergic system in its pathogenesis. Zohar, et al. (in press) have found exacerbation of OCD symptoms after subcutaneous injection of sumatriptan, which targets the HTR1Dβ receptor. In addition, the HTR1Dβ as autoreceptor could interact with serotonin transporter function (and thus with SSRI action) via synaptic serotonin. In the current study, a sample of OCD probands and their parents (n=47 trios) was analyzed for the G861C polymorphism of the receptor gene HTRIDβ using the transmission disequilibrium test (TDT).

Results: A total of 29 out of 47 trios were informative for TDT analysis. For genotype-wise TDT, χ^2 =4.28, df=1, p=0.039; and for transmission of G allele: χ^2=4.17, df=1, p=0.04. The G allele was passed 20 times to the offspring verses nine times not passed. We also examined these probands for a positive family history in their first-degree relatives. Fifteen probands had a positive family history and the TDT result for the G allele was χ^2=1.67, df=1, p=0.19, with a similar trend of excess transmission.

Conclusion: Although a larger sample size is necessary, our initial findings suggest that G allele of the HTR1Dβ receptor gene increases risk for OCD.

This work was funded by the Ontario Mental Health Foundation.

NR609 Thursday, May 20, 9:00 a.m.-10:30 a.m.
Naltrexone Augmentation of Sertraline in Depressed Alcoholics

Barbara J. Mason, Ph.D., Department of Psychiatry, Univ of Miami School of Med, 1400 NW 10th Ave,Ste307A(D-79), Miami FL 33136; Lauren D. Williams, M.D., Fernando R. Salvato, M.D., Robert B. Cutler, Ph.D., Thomas B. Cooper, M.A., Ray F. Suckow, Ph.D.

Educational Objectives:

Demonstrate a preliminary understanding of issues in combining naltrexone with sertraline in depressed alcoholics, including issued related to pharmacokinetic interaction, dosing, and effects on depression and drinking outcomes.

Summary:

Background: This double-blind pilot study examines the efficacy of combination therapy with sertraline and naltrexone vs. sertraline monotherapy in patients with comorbid depression and alcoholism.

Subjects and Methods: Nine male and six female outpatients with a mean age of 42.2 years who met DSM-IV criteria for alcohol dependence and depressive disorder were randomized to eight weeks of double-blind treatment with 50mg/day of naltrexone or matched placebo, and up to 200mg/day of sertraline, based on clinical response and tolerability.

Results: Naltrexone in combination with sertraline resulted in greater reduction in drinking than sertraline alone. Patients treated with naltrexone had a positive correlation between HAM-D scores and 6-beta-altrexol plasma concentrations, and required an oral dose of sertraline that was about 20mg higher per day than patients treated with sertraline monotherapy in order to achieve a comparable reduction in HAM-D scores. Naltrexone did not affect the conversion of sertraline to *N*-demethylsertraline.

Conclusions: These pilot data suggest that patients with comorbid depressive disorder and alcohol dependence treated with sertraline and naltrexone may derive greater benefit in terms of drinking than with sertraline alone and may require slightly higher doses of sertraline for optimal depression response.

References:

1. O'Malley SS, Croop RS, Wroblewski JM, Labriola DF, Volpicelli JR: Naltrexone in the treatment of alcohol dependence: a combined analysis of two trials. Psychiatric Annals. 1995;25(11):681-688
2. Mason BJ, Kocsis JH, Ritvo EC, Cutler R.B A double-blind, placebo-controlled trial of desipramine for primary alcohol dependence stratified on the presence or absence of major depression. JAMA 1996;275(10):761-767

NR610 Thursday, May 20, 9:00 a.m.-10:30 a.m.
Dual Diagnosis Patients Need Integrated Treatment

David J. Hellerstein, M.D., Department of Psychiatry, Beth Israel Medical Center, 1st Ave & 16th Street, Pos 2-B, New York NY 10003-2992; Richard N. Rosenthal, M.D., Christian R. Miner, Ph.D.

Educational Objectives:

The participant will understand the utility of addiction and mental health services integration and recognize the impact of integrated services upon treatment retention for the persistently mentally ill substance abuser.

Summary:

Overview: Traditionally, psychiatric and substance abuse services are provided separately to patients with concurrent mental illness and substance abuse. In 63 patients with both RDC schizophrenia and DSM-III-R psychoactive substance use disorders, we assessed the effects of service integration on treatment retention (TR), rehospitalization (RH), substance use (SU), and psychiatric symptom severity (PS).

Method: In a randomized trial we compared manualized integrated psychiatric and substance abuse services (COPAD) to equally intense nonintegrated treatment. To evaluate TR, we used Fisher's Exact tests; for RH, Kaplan-Meier plots and Cox proportional hazards regression; and for SU and PS (Addiction Severity Index composite scores), Generalized Estimating Equations (GEE).

Results: Following randomization, 25 subjects (39%) dropped out, attending ≤ 1 outpatient session. For treatment starters, 87% of COPAD patients were retained in treatment (20/23) at eight months versus 53.3% of control patients (8/15)($p = .03$,f $.\phi = 37$), a moderate effect size. High attrition, especially among controls, made other outcomes difficult to interpret. A significant main effect for RH was found for Engagement Status, favoring starters ($h = 4.1$; $p < .0001$). GEE yielded no main group effects, though treatment exposed subjects improved in PS over time. COPAD subjects showed trends toward less alcohol ($z = -1.93$, $p < .10$) and drug problems ($z = -1.72$, $p < .10$) at eight months compared with controls.

Discussion: This controlled study provides evidence that patients with addictive disorders and schizophrenia connect better with integrated treatment services, which can lead to better outcome in a variety of domains. This and other studies will be discussed in presenting integrated treatment as the mode of choice for such patients.

Supported by NIMH MH 46327 and NIDA DA 09431.

References:

1. Hellerstein DJ, Rosenthal RN, Miner CR: A prospective study of integrated outpatient treatment for substance-abusing schizophrenic patients. American Journal on Addictions 4:33-42, 1995

2. Miner CR, Rosenthal RN, Hellerstein DJ, Muenz LR: Prediction of noncompliance with outpatient treatment referral in substance-abusing schizophrenics. Arch Gen Psych 54: 706-699, 1997

NR611 Thursday, May 20, 9:00 a.m.-10:30 a.m.
Fluoxetine Treatment of Depressed and Non-Depressed Patients with Cocaine Dependence

Steven L. Batki, M.D., Department of Psychiatry, University of CA at San Fran, 1001 Potrero Avenue, San Francisco CA 94110; Mark Bradley, Julia Moon, B.A., Kevin Delucchi, Ph.D., Peyton Jacob, Jr., M.D., Reese T. Jones, M.D.

Educational Objectives:

Describe the effectiveness of fluoxetine in the treatment of depressed and non-depressed individuals with primary crack cocaine dependence.

Summary:

Objective: Fluoxetine treatment has been effective in some studies of cocaine dependence, but ineffective in others. This controlled study tested the efficacy of fluoxetine for outpatient treatment of primary crack cocaine dependence.

Method: A total of 149 subjects, were randomly assigned to placebo (PLA) or fluoxetine (FLX) (73 PLA, 76 FLX). Subjects were stratified on the basis of current major depressive disorder (MDD). There were 17 Ss with MDD, and 59 without MDD in the PLA group; 18 Ss with MDD and 55 without MDD in the FLX group. Participants received 40mg/day of FLX or PLA in a double-blind controlled trial over a 12-week period. Outcome measures included quantitative urine benzoylecgonine (BE) concentration, self-reports of cocaine use and craving, and treatment retention, as well as Addiction Severity Index (ASI), Beck Depression Inventory (BDI), and AIDS Risk Assessment Battery (RAB) scores.

Results: FLX was well tolerated. While cocaine use, BDI, and RAB all decreased over time in both the FLX and PLA groups, no significant differences were found between the two groups in urine BE concentration, self-reported cocaine use, craving, or retention. Currently depressed subjects did not respond more favorably to fluoxetine.

Conclusion: Fluoxetine did not show efficacy in the treatment of cocaine dependence in either depressed or nondepressed subjects.

NIDA Grants P50 DA 09253, P50 DA 01696

References:

1. Nathan KI, Bresnick W, Batki SL: Cocaine abuse and dependence: approaches to treatment. CNS Drugs 10:43-59, 1998
2. Grabowski J, Rhoades H, Elk R, et al: Fluoxetine is ineffective for treatment of cocaine dependence or concurrent opiate and cocaine dependence: two placebo-controlled, double-blind trials. Journal of Clinical Psychopharmacology 15(3):163-174, 1995

NR612 Thursday, May 20, 9:00 a.m.-10:30 a.m.
ADHD and Antisocial Personality Disorder As Independent Predictors of Alcoholism 15 Years Later

Margaret A. Sullivan, Ph.D., Department of Psychiatry, Kansas University Med Ctr, 3901 Rainbow Boulevard, Kansas City KS 66160; Sunil Chhibber, M.D., Elizabeth C. Penick, Ph.D., Elizabeth J. Nickel, M.A., Donald W. Goodwin, M.D., Joachim Knop, M.D., Per Jensen, M.D.

Educational Objectives:

Understand the influence of traits associated with attention deficit disorder and antisocial personality disorder on adult alcoholism.

Summary:

Objective: The Danish Longitudinal Study of Alcoholism was designed to identify antecedent predictors of male adult alcoholism. This prospective analysis focuses on the predictive value of high risk (i.e., parental alcoholism), attention deficit disorder (ADD), and antisocial personality (ASP) beginning in childhood on alcohol dependence at age 30.

Method: The 330 male subjects were drawn from a large, birth cohort that has been studied extensively since 1959. Two-thirds were sons of treated alcoholics. At age 19, prior to the development of an alcohol problem, the subjects were comprehensively studied and data were gathered from school teachers by questionnaire. At age 30, they were re-examined with a series of psychometric tests and interviews.

Results: The influence of risk status, ADD scale scores based upon teacher report, and the presence or absence of ASP on alcohol dependence were examined separately and in combination. Each variable alone was significantly associated with alcoholism. When combined, only ADD and ASP contributed significantly to the prediction of alcoholism ($p<.09$ and .02, respectively).

Conclusion: Parental alcoholism, school-teacher rated attention deficit disorder, and DSM-III-R antisocial personality were all associated with adult alcohol dependence. When combined in a logistic regression model, only ADD and ASP independently contributed to the prediction of adult alcoholism. Subjects with both ADD and ASP in childhood were 13 times more likely to develop a serious drinking problem by age 30.

References:

1. Goodwin DW, Knop J, Jensen P, Gabrielli WF, Schulsinger F, Penick EC: Thirty Year Followup of Men at High Risk for Alcoholism. Annals New York Academy of Sciences, 1197-101, 1994
2. Knop J, Jensen P, and Lykke-Mortensen E, Comorbidity of Alcoholism and Psychopathy, in T. Millon, E Simonsen and Birket-Smith (eds). Psychopathy, Antisocial Criminal and Violent Behavior Guilford Press: New York, pp. 321-331, 1998.

NR613 Thursday, May 20, 9:00 a.m.-10:30 a.m.
Human Ethanol Sensitivity/Insensitivity: Towards a Measurable Phenotype

Thomas P. Beresford, M.D., Department of Psychiatry, VAMC/University of Colorado, 1055 Clermont Street, Denver CO 80220; Steve Wilson, Robin Corley, Ph.D., John K. Hewitt, Ph.D.

Educational Objectives:

At the conclusion of this presentation the participant should be able to recognize ethanol insensitivity as a possible risk factor for development of alcohol dependence.

Summary:

The search for candidate genes indicating vulnerability to alcohol misuse has lacked measurable phenotypes in humans, espe-

cially in non-ASPD samples. We have searched for a human analog indicating *extremes* of ethanol insensitivity and its opposite, suggesting a strong genetic effect. To be valid, this phenomenon must be found in normal, nonproblematic subjects. Excluding tolerance, problem drinking, and ASPD prodromal symptoms, we assessed 325 adolescent twins (12-18 years; 50% male) by survey report on four measures of ethanol sensitivity. We used chi square analysis for goodness of fit between sensitivity items and drinking behavior. Of 37 subjects who answered three of four items indicating sensitivity to ethanol, only three (8.1%) reported regular use of ethanol. By contrast, 23 of 52 subjects (44%) who endorsed all four insensitivity items reported regular drinking. The difference was significant (chi square = 13.6, p<p.001). These data and others from this study suggest that a human analog for ethanol insensitivity, perhaps like that seen in inbred mice, may be expressed through self-reports of experience with ethanol. Such reports must be verified in laboratory conditions and heritability measures must be assessed before searching for candidate genes.

References:

1. Vaillant GE: Evidence that the type 1/type 2 dichotomy in alcoholism must be re-examined. Addiction. 89(9):1049-57; discussion 1059-70, 1994
2. Schuckit MA, Smith TL: Assessing the risk for alcoholism among sons of alcoholics. Journal of Studies on Alcohol 58(2):141-5, 1997

NR614 Thursday, May 20, 9:00 a.m.-10:30 a.m.
The Effects of Experimental Cocaine Administration on Subsequent Cocaine Intake in Individuals with Cocaine Dependence

Sara Krause, B.A., Department of Psychiatry, Massachusetts General Hospital, 16 Blossom Street, Boston MA 02114; Igor Elman, M.D., Randy L. Gollub, M.D., Hans C. Breiter, M.D., Nikki Gordon, Bruce R. Rosen, M.D. David R. Gastfriend, M.D.

Educational Objectives:

Demonstrate a familiarity with clinical assessment tools and biological markers used to evaluate drug exposure. The participants should also appreciate the value of these tools in the diagnosis and follow up of individuals with drug dependence.

Summary:

Objective: Experimental administration of cocaine to human subjects is a widely used research paradigm for investigating the neurobiological mechanisms underlying cocaine addiction. The effects of participation in such studies on subjects' subsequent drug use are still undetermined.

Methods: In this pilot study, nine cocaine-dependent subjects were reevaluated three and six months following participation in a fMRI study of the effects of acute-cocaine administration. Follow-up evaluation included computerized clinical assessments, hair assays, and urine toxicology screens. For comparison, data were collected from nine cocaine-dependent subjects who did not participate in the cocaine infusion protocol.

Results: Preliminary analysis of reported cocaine use, Addiction Severity Index Drug use composite score, hair cocaine concentration, and the rates of urine screens testing positive for cocaine and its metabolites revealed significant reductions in drug use severity over time in both groups.

Conclusions: These results suggest that cocaine administration in a laboratory setting does not worsen clinical outcomes in subjects with cocaine dependence.

References:

1. Baumgartner WA, Hill VA: Hair analysis for organic analytes: methodology, reliability issues, and field studies in drug testing in hair, in drug testing in hair. P. Kintz, ed. Boca Raton, CRC Press, 1996
2. McLellan AT, Luborsky L, Cacciola J, Griffith J, Evans F, Barr HL, O'Brien CP: New data from the Addiction Severity Index–reliability and validity in three centers. J Nerv Mental Dis 173(7):412-423, 1985

NR615 Thursday, May 20, 9:00 a.m.-10:30 a.m.
Psychosocial Issues During Shuttle/Mir Missions

Nick A. Kanas, M.D., Department of Psychiatry, University of California, 4150 Clement Street #116A, San Francisco CA 94121; Vyacheslav Salnitskiy, Ph.D., Ellen Grund, M.S., Vadim Gushin, M.D., Olga Kozerenko, M.D., Alexander Sled, M.S., Daniel S. Weiss, Ph.D., Charles R. Marmar, M.D.

Educational Objectives:

Understand how psychiatric and interpersonal issues affect astronauts, cosmonauts, and mission control personnel during long-duration space missions, as studied during the recently completed Shuttle/Mir program.

Summary:

Objective: It is important to understand how psychiatric and interpersonal issues affect long-duration space travelers in order to prevent mission-threatening problems. This four-year, NASA-funded study examined crew member tension, cohesion, leadership, and crew-ground interactions during five U.S. and four Russian Shuttle/Mir space missions.

Method: After signing informed consent, 17 astronauts/cosmonauts and 59 U.S. and Russian ground personnel participated. Each week, subjects on the Mir and in the Moscow mission control center completed the Profile of Mood States and the Group and Work Environment Scales.

Results: Preliminary results supported several hypotheses. There were significant drops in crew member cohesion and leader support during the second half of the missions. There was evidence for the displacement of tension and dysphoria from the crew to mission control and from mission control to management. Crew members scored significantly lower than ground personnel on several dysphoria subscales.

Conclusions: Psychosocial changes occur over time that may be due to disruptions in interpersonal relationships and to asthenia, an agitated depression described by Russian clinicians monitoring cosmonauts. Negative affects displaced outwardly may reflect an inability to deal with them internally. Additional studies are needed to further evaluate psychosocial issues during future space missions.

References:

1. Kanas N: Psychiatric issues affecting long duration space missions, Commentary. Aviat Space Environ Med 69:1211-1216, 1998
2. Kanas N, Weiss DS, Marmar CR: Crew member interactions during a Mir space station simulation. Aviat Space Environ Med 67:969-975, 1996

NR616 Thursday, May 20, 9:00 a.m.-10:30 a.m.

Who Gets into Clinical Trials?

Gabor I. Keitner, M.D., Department of Psychiatry, Rhode Island Hospital, 593 Eddy Street, Providence RI 02903; Christine E. Ryan, Ph.D., David A. Solomon, M.D., Ivan W. Miller, Ph.D.

Educational Objectives:

At the conclusion of this presentation the participant should have a better understanding of characteristics of patients and reasons why they are included or excluded from a clinical trial.

Summary:

Objective: Generalizability from clinical trials is problematic due in part to patient selection factors. This research explores the characteristics of patients included and excluded from studies of major depression.

Method: A tracking system was set up beginning with the number of responses elicited from advertisements for clinical trials of antidepressant medications to the number of patients who actually entered the trial. Phases included mailback questionnaires, telephone screens, diagnostic structured interviews, lab work and physicals, and severity ratings.

Results: From over 2,000 interested initial responses to the studies, less than 3% were actually enrolled. The percentage of drops from each phase ranged from 45% to 85%. Information from the mailback phase indicated that patients included in the trials were less likely to have been previously hospitalized for depression or another psychiatric illness compared with those excluded from the trial (5% vs. 22%, χ^2=4.24, p=.01), less likely to have a well period in the past two years (8% vs. 30%, χ^2=8.67, p=.01), and more likely to have been depressed for a higher percentage of time in the previous month (86.2 vs 75.4, t=-5.8, p<.001). Analyses of the other phases are in the process of being compared and will be presented.

Conclusion: Results of clinical trials are based on a very selective population of depressed patients. Interpolation of findings to clinical practice needs to be made cautiously.

References:

1. Partonen T, Sinikka S, Lonnqvist JK: Patients Excluded from an antidepressant efficacy trial. Journal of Clinical Psychiatry 1996, 57:572-575
2. Endicott J, Schwartz GE, Lee JH, et al: Classification issues in patient selection and description; in, Prien, RF, Robinson DS, eds. Clinical Evaluation in Psychotropic Drugs: Principles and Guidelines. New York, NY: Raven Press, 1994:69-83

NR617 Thursday, May 20, 9:00 a.m.-10:30 a.m.

Missed Initial Visits in a Managed Care Network

Myron L. Pulier, M.D., Department of Psychiatry, UMDNJ-NJ Medical School, 185 South Orange Avenue, Newark NJ 07103; Cherie Castellano, M.A., Donald S. Ciccone, Ph.D., Karen Marcus, M.S. W., Steven J. Schleifer, M.D.

Educational Objectives:

Have an enhanced understanding of factors contributing to patient compliance with initial appointments for ambulatory care in managed care practice networks. The role of patient demographic and clinical characteristics and that of practice configuration and administration will be better understood.

Summary:

Objective: Failure to keep initial behavioral health care appointments reportedly occurs for 20% to 50% of patients. Managed care practice presents special challenges with respect to compliance with appointments, and no-shows have additional import for practice efficiency in this setting. Our university-based Delegated Care Management (DCM) project provides nonemergent management and ambulatory care through a provider network. Masters level care managers conduct structured telephone interviews and make initial referrals. We assessed patient- and practice-site correlates of nonattendance for first appointments.

Method: Records detailing 1,373 calls to the telephone access center (5/5/97 to 5/31/1998) were matched with billing records to identify no-shows. Patients keeping and missing first appointments were compared (*t*-tests and Chi-square) on demographic, clinical, and practice site characteristics.

Results: Twenty-seven percent of patients neither kept nor rescheduled first appointments. Neither demographic nor clinical variables predicted nonattendance. Factors distinguishing those missing appointments included delay >10 days in first appointment offered (p<.004) and delay in first appointment accepted (p<.001). Site characteristics also predicted no-shows: among the 13 highest-volume (of 25 total) practice sites, no-shows ranged from 15% to 57%. Practices having more referrals had fewer no-shows (p<.007), as did those telephoning patients to confirm (p<.001). offering evening/weekend hours (p<.001), and organized to administer managed care contracts (p<.001).

Conclusion: While systematic assessment of patient characteristics is necessary, practice site flexibility is an important predictor of patient compliance.

References:

1. Bartlett J: The emergence of managed care and its impact on psychiatry. New Directions for Mental Health Services 63:25-34, 1994
2. Ciccone DS, Pulier M., Castellano C, Marcus K, Schleifer SJ, Psychiatric referral by managed care interviewers. New Research, Annual Meeting of The American Psychiatric Association, Toronto, Ontario, June, 1998

NR618 Thursday, May 20, 9:00 a.m.-10:30 a.m.

Weight Gain and Glucose Metabolism with Atypical Antipsychotics

Daniel E. Casey, M.D., Department of Psychiatry, Veterans Affairs Medical Cntr., 3710 SW US Veterans Hosp Road, Portland OR 97201; Peg Shepherd, Ph.D.

Educational Objectives:

Discuss the risk factors associated with weight gain and know the steps to take to monitor patients at risk for drug related weight gain.

Summary:

Atypical antipsychotic drugs are rapidly replacing the typical neuroleptics as the standard of care for treating acute and chronic psychoses. These new medicines have the benefits of better efficacy and far fewer side effects of extrapyramidal syndromes and tardive dyskinesia. However, these agents can cause substantial weight gain in many patients. To assess the prevalence and magnitude of weight changes in a real life setting, a retrospective chart review of patients receiving clozapine or olanzapine for four months or more was conducted. Changes in weight and measures of carbohydrate metabolism (fasting and nonfasting glucose) were assessed. All patients were treated in the

Portland, Oregon, VA Mental Health Division: 24 received clozapine and 76 received olanzapine. Patients were only included if they had paired (pretreatment and during treatment) values on a variable. Mean length of treatment with clozapine was 3.3 years and with olanzapine was 1.2 years. Using the FDA definition of weight gain as an adverse effect (≥ 7% above baseline weight), 75% of patients on clozapine met this criterion, as did 55% of the olanzapine treated patients. For both drugs weight gain was not correlated with age, gender, dose, duration of treatment, or starting weight. Glucose levels also showed increases. In the clozapine group 43% (6 out of 14) patients with normal pretreatment fasting glucose levels had elevated fasting glucose levels during treatment. In the olanzapine group 25% (3 out of 12) converted from normal to abnormal fasting glucose during treatment. These data confirm that weight gain can be a clinically significant issue with atypical antipsychotics and may increase the risk for weight-related medical illnesses such as diabetes mellitus.

References:

1. Casey DE: Side effect profile of new antipsychotic agents. Journal of Clinical Psychiatry 1996.;57:40-45
2. Wirshing DA, Spellberg BJ, Erhart S, Marder S, Wirshing WC: Novel antipsychotics and new onset diabetes. Biol Psychiatry 1998;44:778-83

NR619 Thursday, May 20, 9:00 a.m.-10:30 a.m. Cognitive-Behavior Therapy and Fluoxetine for Binge Eating Disorder

Carlos M. Grilo, Ph.D., Department of Psychiatry, Yale Psychiatric Institute, PO Box 208038/184 Liberty St., New Haven CT 06520; Robin Masheb, Ph.D., Robert M. Berman, M.D., Elayne Daniels, Ph.D., Thomas H. McGlashan, M.D., G. Terrence Wilson, Ph.D., George R. Heninger. M.D.

Educational Objectives:

At the conclusion of this presentation, participants should be able to recognize potential treatments for binge eating disorder (BED). Participants will have an understanding of the efficacy of cognitive behavioral and fluoxetine treatments for BED based on findings from a randomized controlled clinical trial.

Summary:

Objective: To perform a controlled clinical trial for binge eating disorder (BED) to test the efficacy of cognitive-behavioral therapy (CBT) and of fluoxetine and to test the relative efficacy of these two treatments either alone or in combination.

Method: Patients with DSM-IV-defined BED were randomly assigned to one of four treatment conditions for 16 weeks of individual treatments: (1) fluoxetine treatment (60 mg/day), (2) pill placebo, (3) fluoxetine treatment (60 mg/day) combined with CBT; or (4) pill placebo combined with CBT. Medication was administered in double-blind fashion and CBT was administered following a manualized protocol by monitored clinicians. Serial assessments (multi-modal assessment battery) were administered at baseline, 4, 8, 12, and 16 weeks.

Results: This controlled comparative trial remains open and continues to enroll participants. At the time of abstract submission, 60 BED subjects (52 females, 8 males) aged 21 to 58 (M = 43 years) with an average body mass index of 36 were enrolled. At the start of treatment, subjects averaged 17 binges per month, had mean Beck Depression Inventory (BDI) scores of 18, and had intense body image dissatisfaction (mean BSQ = 139). Preliminary analyses at posttreatment revealed significant reductions in binge eating (mean of four binges per month) ($F = 8.3$, $p < .001$), depression (mean BDI = 9)($F = 5.6$, $p < .000$), and body dissatisfaction (mean BSQ = 108)($F = 5.6$, $p < .000$). Preliminary analyses suggest that CBT and fluoxetine treatments are superior to pill placebo.

Conclusion: Preliminary results of this ongoing randomized clinical trial suggest that fluoxetine and CBT can produce substantial reductions in binge eating and associated psychopathology. Implications of the findings for clinical practice and research will be discussed.

References:

1. Wilfley DE, Agras WS, Telch CF et al: Group cognitive-behavioral therapy and group interpersonal therapy for the nonpurging bulimic: a controlled comparison. J Consult Clin Psychol 61-.296-305, 1993
2. Agras WS, Telch CF, Arnow B, et al: Weight loss, cognitive-behavioral, and desipramine treatments in binge eating disorder: an additive design. Behavior Ther 1993; 25:209-238

NR620 Thursday, May 20, 9:00 a.m.-10:30 a.m. Urinary AD7C-NTP As a Marker for Alzheimer's Disease

Hossein A. Ghanbari, Ph.D., Nymox Corporation, 5516 Nicholson Lane, Ste 100-A, Kensington MD 20895; Kasra Ghanbari, Audrey Vasaukas, Anita Mattero, Michael Munzar, M.D.

Educational Objectives:

Recognize that urinary AD7C-NTP is a peripheral marker for Alzheimer's disease and may be used to aid in diagnosing the disease.

Summary:

AD7C-NTP is a 41 kD protein present in neurons. It is selectively upregulated in brain and is associated with the pathology of the disease. Over-expression of AD7C-NTP in transfected neuronal cells promotes neuritic sprouting and apoptosis. AD7C-NTP level is correlated with dementia score but not with age. Levels of AD7C-NTP in CSF greater than 2.0ng/mL were found in 83% of the possible/probable AD group and in 89% of the early AD group but in only 11% of age-matched normal controls and 6% of non-AD demented controls. In this study, AD7C-NTP levels have been measured in CSF and urine samples from 21 cases of AD as well as aged-matched controls obtained from multiple sites. The urine samples consisted of 11 24-hour and 10 morning void specimens, The concordance between CSF and urinary AD7C-NTP values was 86% for all cases and 90% for morning void cases. The AD group had CSF and urinary AD7C-NTP mean values of 3.6 and 2.3ng/mL, respectively; similarly, the mean AD7C-NTP values for CSF and urine in non-AD group were 1.3 and 0.9ng/mL. All the mean values were consistent with published studies. This study confirms the utility of urinary AD7C-NTP as a peripheral marker for AD.

References:

1. de la Monte SM, Ghanbari K, Frey WH, et al: Characterization of the AD7C-NTP cDNA expression in Alzheimer's disease and measurement of a 41-kD protein in cerebrospinal fluid. J Clin Invest. 1997; 100:3093-3104
2. Ghanbari HA, Ghanbari K, Munzar M, et al: Specificity of AD7C-NTP as a biochemical marker for Alzheimer's disease. J Contemp Neurol 1998;4A: 1-6

NR621 Thursday, May 20, 12 noon-2:00 p.m.
Potential Cost Savings of Pill-Splitting

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Summary:

Rationale: The introduction of new psychotropic medications have spurred the rapid growth in this class of medications. However, the high cost of the newer medications may limit their availability. Because the pricing of these medications provides for little cost differences in strengths, it may afford an opportunity for savings. The aim of this paper is to examine the potential cost savings that can be realized by splitting the newer psychotropic medication tablets. Psychotropic medications lend themselves to pill-splitting because their clinical actions primarily depend on more long-term alterations in neurotransmitter production and receptor sensitivity.

Methods: All newer psychotropic medications that had strengths that could be halved and were in non-capsule form were examined. Utilizing manufacturers' data on the number of pills sold at each strength, we calculated the potential savings to consumers if they split their pills in half.

Results: For the 12 drugs examined, if 100% of all nine eligible prescriptions used split dosages, annual savings of $1.7 billion would be realized. If one-half or one-fourth of eligible prescriptions used split dosages, savings of $857 million and $426 million, respectively, could be achieved.

Conclusions: Given total retail sales of $8 billion for all strengths of these newer medications, these savings represent a potential reduction of about 20% in costs to consumers. Such savings could also benefit state Medicaid programs, community mental health centers, and managed care companies. To further facilitate pill splitting, we recommend that manufacturers score all strengths of medications, pharmacists be required to fill prescriptions for split doses, and incentives be provided to pharmacists to split medications.

NR622 Thursday, May 20, 12 noon-2:00 p.m.
Serotonin Function and Suicidal Behavior

Humberto Correa, M.D., Department of Psychiatry, Ctre Hospitalier, 27 Rue Du 4 RSM, Rouffach 68250, France; Fabrice Duval, M.D., M. Claude Mokrani, Ph.D., Paul Bailey, M.D., Than Son Diep, M.D., Marc-Antoine Crocq, M.D., Jean-Paul Macher, M.D.

Summary:

Objective: We carried out this study to test the hypothesis that altered central serotonin (5-HT) function, as assessed by lower prolactin (PRL) response to d-fenfluramine (d-FEN, a specific 5-HT releaser/uptake inhibitor), is more closely associated with suicidal behavior than depression itself.

Methods: A d-FEN test (45 mg orally) was performed in 85 drug-free, DSM-IV major depressed inpatients (49 with a history of suicide attempt, 36 without), 33 drug-free DSM-IV schizophrenic inpatients (12 with a history of suicide attempt, 21 without), and 18 hospitalized controls. All schizophrenic patients had Hamilton Rating Scale scores for depression less than 16.

Results: Patients with a history of suicide attempt showed lower d-FEN-induced PRL stimulation (ΔPRL) than controls (depressed patients vs. controls: $p<0.02$, schizophrenic patients vs. controls: $p<0.0003$). In the depressed group, patients with a history of suicide attempt showed lower ΔPRL values than depressed patients without such a history ($p<0.001$); moreover, ΔPRL values were correlated with the number ($p=-0.30$; $n=49$; $p<0.04$) and lethality of suicide attempts ($p=-0.40$;$n=49$; $p<0.006$) over time. In the schizophrenic group, patients with a history of suicide attempt had lower ΔPRL values than schizophrenic patients without such a history ($p<0.04$). Controls and patients (depressed or schizophrenic) without a history of suicide attempt showed comparable ΔPRL values.

Conclusions: Taken together these results suggest that PRL response to d-FEN is a marker of suicidality in depressed and schizophrenic patients, but not of depression itself.

NR623 Thursday, May 20, 12 noon-2:00 p.m.
Donepezil Adjunctive to SSRIs in Obsessive-Compulsive Arrangers: Preliminary Findings

Cary L. Hamlin, M.D., Informatics, Fear Free Technology Inc., 385 Rt. 24, Chester Woods 2B, Chester NJ 07930

Summary:

Objective: Evaluate donepezil as an adjunctive treatment to SSRIs in OCD-Factor2 patients. Findings of striatal hypometabolism during brain imaging of OCD Arrangers that normalizes with SSRI treatments prompted a hypothesis that psychopharmaceuticals that raise striatal metabolism would be therapeutic in these patients. Since many interneurons in the striatum are acetylcholinergic, activation of acetylcholinergic neurotransmission with the acetylchoinesterase inhibitor donepezil was selected as a strategy for adjunctive treatment of OCD Arrangers. Abnormal responses of prolactin to acetylchoinesterase inhibitors in some OCD patients have been reported.

Method: In an open study, six OCD Arranger patients (DSM4 criteria+ symmetry + ordering + dysdiadokokinesis) who were already being treated with SSRIs received the Yale-Brown Obsessive-Compulsive Scale before and after the addition of donepezil (10mg/day). Test of significance was by paired Student's "t" test score.

Results: YBOCS scores for the pretest had a mean of 23 and standard deviation of 3.9. YBOCS scores for the post test at 4-8 weeks had a mean of 15 and a standard deviation of 4.6. Student's "t" test score of the means difference and five degrees of freedom was 4.43 and this change was significant at $p= .007$.

Conclusions: These preliminary findings need to be followed up by controlled study of the efficacy of donepezil in OCD Arrangers.

NR624 Thursday, May 20, 12 noon-2:00 p.m.
Sildenafil Citrate for Antidepressant-Induced Sexual Dysfunction in Female Patients

Paula L. Hensley, M.D., Department of Psychiatry, University of New Mexico, 2600 Marble Avenue NE, Albuquerque NM 87131; H. George Nurnberg, M.D., John Lauriello, M.D., Lynda M. Parker, M.D., Samuel J. Keith, M.D.

Summary:

Sexual dysfunction is one of the more common and troublesome side effects associated with selective serotonin reuptake inhibitors [SSRI), as well as the other classes of antidepressants. It frequently results in medication switching, discontinuation, or dose reductions to ineffective levels. Approximately 50% of patients of both genders reportedly experience some degree of sexual dysfunction with SSRIs. In women, the most common complaints include decreased libido, difficulty with lubrication, dyspareunia, and anorgasmia. We report the use of sildenafil

(ViagraTM) for antidepressant induced sexual dysfunction in women.

Method: Ten female outpatients who developed sexual dysfunction, specifically anorgasmia with or without associated disturbances, during antidepressant treatment (primarily SSRIs) were selected. In open fashion, each subject was prescribed sildenafil 50 mg. to be taken approximately one hour before sexual activity. For a partial or lack of response, the dose was increased to 100 mg. for the next occasion.

Results: Nine patients who took sildenafil showed significant reversal of sexual dysfunction, usually with the first dose of 50 mg. One patient declined the trial on reconsideration.

Conclusion: Sildenafil appears to be a promising approach for management of antidepressant-induced sexual dysfunction and deserves further evaluation in randomized, placebo-controlled studies.

NR625 Thursday, May 20, 12 noon-2:00 p.m.
A Randomized, Controlled Trial of Risperidone for Psychotic Features in PTSD

Mark B. Hamner, M.D., Department of Psychiatry, Ralph H. Johnson, 109 Bee Street (116A), Charleston SC 29401-5703; Helen G. Ulmer, C.S.N., Clare Tyson, B.S., B. Christopher Frueh, Ph.D., Michael G. Huber, M.D., Timothy J. Twomey, B.S., Michael 0. Measom, M.D.

Summary:

Psychotic features may occur frequently in patients with chronic post-traumatic stress disorder (PTSD). Surprisingly, there has been little systematic study of the role of antipsychotics in PTSD. In a prospective, randomized, double-blind, placebo-controlled, flexible-dose trial we assessed the efficacy of the atypical antipsychotic risperidone added to existing medications in 40 patients with chronic PTSD and well-characterized comorbid psychotic features. Following a one-week, single-blind, placebo lead-in, patients were randomized to five weeks of double-blind treatment. Two patients discontinued prior to the initial assessment and 38 patients completed at least one week of treatment with risperidone (N=19) or placebo (N=19). The Positive and Negative Syndrome Scale (PANSS) was the primary outcome measure. Secondary measures included the Clinician Administered PTSD Scale (CAPS) and other assessments. Preliminary data analysis of end-point measures showed a significant reduction in global psychosis (PANSS ratings) in the risperidone-treated patients but not in the placebo group. Hallucinations and delusions declined significantly only in the risperidone group. The risperidone group also had a significant reduction in CAPS reexperiencing symptom subscale scores. The average dose of risperidone was 2.8 ± 1.7 mg. There were minimal extrapyramidal symptoms in either group. These data support the potential efficacy of risperidone in treating psychotic features associated with PTSD and suggests that core PTSD reexperiencing symptoms may also be responsive.

NR626 Thursday, May 20, 12 noon-2:00 p.m.
The Effects of Mirtazapine on Plasma Lipids in Healthy Volunteers

Linda M. Nicholas, M.D., Department of Psychiatry, University North Carolina, CB# 7160, Chapel Hill NC 27599-7160; Amy L. Ford, M.A., Sharon M. Esposito, M.D., R. David Ekstrom, M.A., Robert N. Golden, M.D.

Summary:

The antidepressant mirtazapine has been linked to elevated random plasma total cholesterol (TC) levels, with a reported average 3% to 4% increase. The meaning of random TC levels is difficult to interpret, particularly since improved appetite and increased caloric intake may occur with improvement of depression. The purpose of this study was to evaluate in a more controlled approach the putative effect of mirtazapine on plasma lipids.

In a sex-balanced, double-blind design, 36 healthy subjects (17 males and 19 females) were randomized to receive either mirtazapine (N= 17) or placebo (N= 19) for a four-week period. Weights and plasma lipoprotein profiles, including TC, LDL, HDL, and triglycerides (TG), were determined at baseline and at weekly intervals throughout the study. Baseline comparisons were assessed with independent t tests and within-group changes with paired t tests.

There was a statistically significant increase (-3%) in mean body weight in the mirtazapine group (p=0.002) that appeared to reach a plateau at three weeks, while no increase was observed in the placebo group (p=0.6). No significant changes in any of the lipid parameters were observed following the four-week study within the placebo group. Within the mirtazapine group, there were no significant increases in LDL (p=0.6) or TG (p=0.3). A nonsignificant trend toward increased mean TC (p= 0. 12) seemed to reflect a strong trend toward increased HDL (p=0.052).

The results of this study suggest that mirtazapine-associated increases in total cholesterol may be due to increases in HDL, or "good cholesterol."

NR627 Thursday, May 20, 12 noon-2:00 p.m.
Effects of Ketamine and an Anticholingeric in Cebus Monkeys

Daniel E. Casey, M.D., Department of Psychiatry, Veterans Affairs Medical Cntr., 3710 SW US Veterans Hosp Road, Portland OR 97201; Yasuyuki Shiigi, M.S.

Summary:

In humans, phencyclidine and ketamine, N-methyl D-aspartate (NMDA) glutamatergic antagonists, produce a syndrome of behavioral effects, which have many characteristics in common with schizophrenia and motor side effects from neuroleptics. The purpose of the present studies was to characterize the effects of ketamine alone and in combination with an anticholinergic agent in monkeys. Cebus monkeys (13-41 years old) previously sensitized to neuroleptics were tested in their home cages. An experienced rater who was blind to the drug dosage scored behaviors before and during ketamine (.5-5.0 mg/kg IM) and benztropine (0.05-0.25 mg/kg IM), which was injected one hr before ketamine. Saline was given as a placebo control. Behaviors rated included dystonia, bradykinesia, locomotor activity, reactivity to environmental stimuli, eye blinking per 30 seconds, and salivation.

Ketamine produced dose-related increases in dystonia, bradykinesia, and salivation, and dose-related decreases in eye blinking, locomotor activity, and reactivity to environmental stimuli. Benztropine dose-dependently blocked the ketamine-induced salivation but only partially blocked the dystonia, bradykinesia, and locomotor activity, and did not block reactivity to environmental stimuli. These results suggest a glutamatergic role in motor and mental function that is only partially influenced by cholinergic mechanisms.

NR628 Thursday, May 20, 12 noon-2:00 p.m.
The Precision of Comparability of Adverse Event Rates of Newer Antidepressants

Karl J. Looper, M.D., Department of Psychiatry, McGill University, 1033 Pine Avenue West, Rm 107, Montreal QC H3A 1A1, Canada; Stephen Vida, M.D.

Summary:

Objective: Most physicians refer to the Physicians Desk Reference (PDR) to compare antidepressant adverse event rates (AERs). We examined the suitability of theses data for comparing AERs of nine antidepressants: buproprion, citalopram, fluoxetine, fluvoxamine, moclobemide, nefazodone, paroxetine, sertraline, and venlafaxine.

Method: We tested the homogeneity of placebo-arm AERs across drugs as reported by the product monographs. This was used as an indicator of nonpharmacologic factors contributing to the AER differences. We then estimated the degree of this influence by correlating active drug and placebo AERs.

Results: For all adverse events (AEs), the placebo AERs were significantly heterogenous ($p<0.03$), and for 14 of 16 they were highly heterogenous ($p<0.0002$). The association between placebo AERs and active drug AERs ranged from 0.22 for somnolence to 0.97 for agitation, with 11 of 16 AEs having associations of greater than 0.70.

Conclusions: The heterogeneity of the AERs of the placebo arms suggests that non-pharmacologic factors may render these data unsuitable for comparisons of AERs between antidepressants. The large associations between active drug and placebo AERs suggest that differences in antidepressant AERs as reported by the PDR may be largely due to nonpharmacologic factors. The standardization of methods for ascertaining AERs may improve their comparability.

NR629 Thursday, May 20, 12 noon-2:00 p.m.
Management of Weight Gain and Diabetes by Clozapine-Quetiapine Fumarate Combination Therapy: Preliminary Findings

Michael J. Reinstein, M.D., Department of Psychiatry, Forest Hospital, 4755 N Kenmore Avenue, Chicago IL 60640; Larissa A. Sirotovskaya, M.D., Sangarapillai C. Mohan, M.D., Lynne E. Jones, R.N., Maxim A. Chasanov, M.D.

Summary:

Objective: To assess changes in weight and diabetes status for patients who initially were treated with clozapine and then switched to clozapine-quetiapine combination therapy.

Method: Body weight data were collected for a group of 65 randomly selected schizophrenic patients who were on clozapine initially and then had quetiapine added to their therapy. Weights were recorded monthly, and status of diabetes follow-up was performed too. Clozapine dosages were reduced as quetiapine was added proportionally.

Results: Data were extracted from retrospective chart review of 65 patients who were prospectively assigned to clozapine-quetiapine therapy. All 65 patients showed weight loss ranging from 0-23 lbs., with a mean loss of 3.98 lbs. after the first month of treatment. The improvement continued through the study end points. Marked total weight loss ranged from 1-41 lbs., with a mean loss of 9.2 lbs over the 10-month study period. Twenty percent of patients developed diabetes during clozapine-monotherapy and showed significant improvement of diabetes with addition of quetiapine.

Conclusion: An unusual clinical effect of quetiapine is its apparent propensity to induce weight loss and help with diabetes management in patients who gain weight and develop diabetes on clozapine. The study's data support safety and tolerability of clozapine-quetiapine combination therapy.

NR630 Thursday, May 20, 12 noon-2:00 p.m.
Quetiapine Fumarate and Risperidone in Outpatients with Psychotic Disorders: Results of the QUEST Trial

Michael J. Reinstein, M.D., Department of Psychiatry, Forest Hospital, 4755 N Kenmore Avenue, Chicago IL 60640; Mohammed A. Bari, M.D., Lawrence D. Ginsberg, M.D., Nat H. Sandler, M.D., Jamie A. Mullen, M.D.

Summary:

In a four-month, multicenter, open-label trial, the tolerability and efficacy of quetiapine and risperidone were compared in 751 adult outpatients with psychotic disorders. Patients were randomized in a 3:1 ratio (quetiapine: risperidone) and were flexibly dosed. Assessments included the extrapyramidal symptoms (EPS) checklist, the Hamilton Rating Scale for Depression (HRSD), the Clinical Global Impression (CGI), the Positive and Negative Syndrome Scale (PANSS), and the Drug Attitude Inventory (DAI-10). At the completion of the trial the mean quetiapine dose was 253.9 mg and the mean risperidone dose was 4.4 mg. EPS events in both treatment groups declined over the four-month treatment period, with no significant differences between groups in the overall occurrence of EPS. Patients in the risperidone group were more likely to have an EPS event and more likely ($p<0.001$) to have EPS that required adjustment of study medication or adjunctive medication than were patients in the quetiapine group. Excluding mild EPS symptoms, EPS symptoms rated as "at least moderate" occurred more frequently at each visit in risperidone patients. The quetiapine and risperidone groups had improvements in all efficacy measures. The quetiapine group had significantly ($p=0.0280$) greater improvement in HRSD than the risperidone group. A higher percentage of patients in the quetiapine group relative to the risperidone group had percentage improvement in the CGI at each visit. No statistically significant differences between groups were evident in the PANSS positive scale, negative scale, general psychopathology score, or total score, nor was there a statistically negative general significant difference between groups in the DAI-10. In summary, quetiapine was less likely than risperidone to require dose adjustment for EPS or concurrent anti-EPS medication, was more effective than risperidone in treating depressive symptoms, and was as effective as risperidone in treating the positive and negative symptoms of outpatients with psychosis.

(Funding: Zeneca Pharmaceuticals).

NR631 Thursday, May 20, 12 noon-2:00 p.m.
A Retrospective Study of the Use of Fluoxetine in Children

Jesus J. De La Gandara, Department of Psychiatry, Hosp General Yague, Avda Del Cid SN, Burgos 09005, Spain; Jose L. Velasco, M.D.

Summary:

Introduction: Although the efficacy of antidepressants hasn't been established in children, some antidepressants are prescribed for different pathologies in this special population. We

investigate here the use of fluoxetine in children and adolescents in a child psychiatrist unit.

Method: Observational, retrospective design. We collected data from the clinical records of 116 children and adolescents betweeand 18 years. DSM-III-R diagnoses, CGI severity and improvement, and adverse events were collected. We divided the sample among patients 12 years old or younger (n=21) and patients older than 12 years old (n=63).

Results: In the group of lower age the more frequent diagnoses were: anxiety disorders, ADHD, major depression and elective mutism. In the adolescent group, the diagnoses more frequent were eating disorders, anxiety disorders, major depression, and obsessive-compulsive disorder. The severity of the pathology was more severe in children younger than 12 years (CGI-s 5.1 vs 4.7). Mean doses of fluoxetine was 21 mg/day in the younger children and 34.7mg/day in adolescents. Adverse events were mild and scarce, the most common were gastrointestinal and sleep disorders. Global efficacy was better in adolescents. Obsessive-compulsive disorders, anxiety disorders, eating disorders and depressive disorders were the pathologies where fluoxetine was more efficacius.

Conclusions: Fluoxetine was well tolerated in children and adolescents and shows preliminary efficacy in different pathologies. Double-blind trials should be done to replicate these results.

NR632 Thursday, May 20, 12 noon-2:00 p.m.
Fluoxetine: Open-Trial in Pathological Gambling

Jesus J. de la Gandara, Department of Psychiatry, Hosp General Yague, Avda Del Cid S/N, Burgos 09005, Spain; Olga Sanz, M.D., Inmaculada Gilaberte, M.D.

Summary :

Introduction: Pathological gambling is characterized by the impulse to gamble in a persistent way with deterioration of daily living functioning. Neurobiological research postulates the implication of serotonin in this disorder.

Method: Six-month open-label trial on 20 patients, comparing fluoxetine 20 mg/day-plus support psychotherapy (n =11) vs. only support psychotherapy (n=9) in pathological gambling. Support psychotherapy sessions were carried out monthly. CGI, Ludocage test, and measures of adherence to treatment were used in the efficacy assessment. Tolerance was assessed by collecting spontaneous, adverse events.

Results: There weren't baseline differences between groups regarding sociodemographic characteristics or gambling behavior. There weren't withdrawals by adverse events. There were statistical differences in CGI score at the six-month assessment (flx+psychotherapy group: 1.5 (0.8) vs. psychotherapy group: 3.2 (0.7); p<0.000). Ludo-cage mean score at six-month evaluation was also statistically different (p=0.004), with a higher improvement in fluoxetine+psychotherapy group. A higher percentage of the patients in combined treatment maintained better adherence to the treatment compared with patients who were only in psychotherapy.

Conclusions: Fluoxetine at doses of 20 mg per day in combination with support psychotherapy was well tolerated, and the combined treatment produced a better adherence and a higher percentage of remission than only support psychotherapy. Double-blind trials are needed to replicate these results.

NR633 Thursday, May 20, 12 noon-2:00 p.m.
Changes in Cognitive Function with Quetiapine Fumarate Versus Haloperidol

Dawn I. Velligan, Ph.D., University of TX Hlth Sci Ctr, 7703 Floyd Curl Drive, San Antonio TX 78284; John W. Newcomer, M.D., Joseph Pultz, Ph.D., John G. Csernansky, M.D., Anne L. Hoff, Ph.D., Roderick Mahurin, Ph.D., Alexander L. Miller, M.D.

Summary:

Objective: Recent evidence suggests that schizophrenia patients taking novel antipsychotic medications may perform better on some tests of neurocognitive ability than those treated with older neuroleptics. Furthermore, the cognitive advantages of these newer agents may differ from one another. The current study compared the effects of quetiapine and haloperidol on measures of executive function, memory, and attention.

Method: Subjects were 40 stable outpatients with schizophrenia (DSM-III-R) who received a battery of cognitive tests as part of a randomized, double-blind, multisite, clinical efficacy study. Neuropsychological assessments were conducted prior to randomization to treatment when patients were on 30 mg/day or less of haloperidol or equivalent and again after 24 weeks of fixed-dose treatment with either 600 mg/day of quetiapine or 12 mg/day of haloperidol.

Results: Analyses of covariance were used to compare change scores on neurocognitive measures by treatment group with baseline cognitive function scores used as covariates. Patients on quetiapine improved to a greater extent than patients on haloperidol on tests of both executive function (verbal fluency) and verbal memory (paragraph recall) ($F[1,37]=5.59$; $p<0.03$ and $F[1,37]=7.61$; $p<0.01$, respectively).

Conclusion: Treatment with quetiapine appears to have a positive impact on important domains of cognitive performance that have been found to predict role function and community outcomes in patients with schizophrenia.

NR634 Thursday, May 20, 12 noon-2:00 p.m.
Bupropion Sustained Release in Obesity: A Randomized Double-Blind, Placebo-Controlled Study

Kishore M. Gadde, M.D., Duke University Medical Ctr, Box 3812, Durham NC 27710; Eric J. Logue, B.S.

Summary:

Objective: To evaluate short-term efficacy and safety of bupropion SR in the treatment of obesity.

Method: In an eight-week, randomized, placebo-controlled, double-blind study, 50 obese (BMI 37.5 ± 6.3) women, aged 24-51, were given either bupropion SR or placebo in addition to a 1,600 kcal/d diet. Bupropion SR was administered at a starting dose of 100 mg/d, which was gradually increased as tolerated up to 400 mg/d in divided doses. Diet compliance was monitored with self-rated diaries.

Results: Weight loss was greater in subjects who received bupropion SR compared with placebo as demonstrated by intent-to-treat analysis (% weight loss-bupropion SR 4.86 ± 3.45 vs. placebo 1.26 ± 2.36; p=0.0001) and completer analysis (% weight loss: bupropion SR 6.21 ± 3.09 vs. placebo 1.56 ± 2.95; p=0.0002). Among completers, more subjects receiving bupropion SR (67%) lost over 5% of their initial body weight compared with placebo (15%, p=0.0009). More subjects receiving placebo (32%) withdrew from the study due to dissatisfaction compared with those receiving bupropion SR (4%; p=0.02). Bupropion SR was tolerated well with minimal side effects.

Conclusion: Bupropion SR appeared to be significantly more effective than placebo in achieving weight loss in obese women following a 1,600 kcal/d diet.

This was an investigator-initiated study, funded by a grant from GlaxoWellcome.

NR635 Thursday, May 20, 12 noon-2:00 p.m. Compliance with Samples and Prescriptions

Leo J. Bastiaens, M.D., P.A.B.I.S., St. Francis Medical Center, 400 45th Street, Pittsburgh PA 15201; Salim A. Chowdhury, M.D., Larry Gitelman, R.N.

Summary:

Objective: This study examined the initial compliance with pharmacotherapy in patients who were given samples versus prescriptions.

Method: Eighty-five patients were randomly assigned to receive sample medications versus prescriptions after their initial psychiatric evaluation. One week later, the patients were contacted by phone, and a brief interview examined their initial compliance with the medication. Compliance was rated as follows: 2=100%; 1=1-99%, and 0=0%.

Results: Forty-one patients were given prescriptions (age: 35.1 +/-11.4; 25 females) and 44 patients were given samples (age 38.9 +/- 14.3; 29 females). Diagnoses were as follows: depressive disorders (n=60), anxiety disorder (n=12), psychotic disorder (n=8), bipolar disorder (n=4), ADHD (n=1). After 7.1 +/- 1.3 days, 88.6% of sample patients reported 100% compliance, compared with 65.8% of prescription patients (X^2= 6.9, p< 0.01). Twelve percent in the prescription sample reported zero compliance compared with 2% in the sample group (X^2=3.1, p<0.1). Sixty-three percent of sample patients reported positive effects from the medication in the first week compared with 56% of prescription patients. Thirty-eight percent of sample and 36% of prescription patients reported side effects. Two patients in the sample group discontinued the medication because of side effects.

Conclusion: Samples appear to enhance the initial compliance with psychotropics.

NR636 Thursday, May 20, 12 noon-2:00 p.m. Fluoxetine 20mg Meta Analysis Efficacy Safety

Charles M. Beasley, Jr., M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Denni M. Millard, M.S., Stephanie Koke, M.S., Julia Dillon, Pharm.D.

Summary:

Objective: The efficacy and safety of fluoxetine in adults with major depression is well established. However, most analyses of clinical trial data combined dosages (20-80 mg/day) of the compound. We present a meta-analysis of efficacy and safety data of fluoxetine 20 mg.

Methods: We analyzed data from three double-blind, clinical trials (N=417) that included a placebo group and a fixed-dose fluoxetine 20mg group. Baseline Hamilton Depression Rating Scale (HAMD-21) scores were >20. Efficacy assessments included HAMD-17, HAMD-Anxiety/Somatization Factor, and Clinical Global Impressions of Improvement (CGI-I). Safety assessments included treatment-emergent adverse events (AEs), reasons for discontinuation, and AEs leading to discontinuation.

Results: Fluoxetine-treated patients demonstrated statistically significantly greater mean changes on HAMD-17, HAMD Anxiety/Somatization Factor, and CGI-I than changes in placebo-treated patients (p<.001 for each analysis). The frequency of study discontinuations due to AEs was similar among fluoxetine-treated and placebo-treated patients (6.1% vs. 5.8%, p=.879). Also, the incidence of specific AEs leading to discontinuation was similar between therapies. Several AEs, consistent with the known safety profile of fluoxetine, occurred statistically significantly more frequently in fluoxetine-treated patients.

Conclusion: These data affirm that fluoxetine, specifically 20mg, is efficacious, safe, and well tolerated when compared with placebo in patients with major depression.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR637 Thursday, May 20, 12 noon-2:00 p.m. The Cardiovascular Effects of Fluoxetine in Two Depressed Patient Populations: Healthy and Following a First Myocardial Infarction

Charles M. Beasley, Jr., M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center DC 0538, Indianapolis IN 46285; Jacqueline J. Strik, M.D., Adriaan Honig, M.D., Richel Lousberg, Ph.D., Hanneke G. Tuynman-Qua, M.D., Petra M. Kuijpers, M.D., Emile C. Cheriex, M.D.

Summary :

Objective: To assess the cardiovascular effects of fluoxetine in physically healthy, depressed patients and in depressed patients following a first myocardial infarction (MI).

Methods: Physically healthy, depressed patients: meta-analysis of 897 patients from 10 double-blind clinical trials. Active comparator drugs were administered at therapeutic doses for up to six weeks, and fluoxetine doses ranged from 20 to 80 mg daily. Patients following first MI: separate study of 54 outpatients who were randomized to fluoxetine or placebo for up to 25 weeks. Final daily fluoxetine doses ranged from 20 to 60 mg. Cardiac safety was assessed by comparison of baseline and endpoint ECGs. Recordings were conducted in the presence of appropriate cardiovascular medications.

Results: Regarding mean changes in heart rate, PR, QRS, and QTc intervals, only a slight increase (5 msec) in QTc was statistically significant in physically healthy, depressed fluoxetine patients compared with placebo patients. No categorical difference in incidence in any of these parameters was statistically significant. Increases in heart rate, PR, QRS, and QTc intervals with tricyclics were all statistically significant compared with fluoxetine, which had no increases. No statistically significant changes were noted in the post MI study, except a 2.8 msec decrease and a 2.6 msec increase in the QRS interval in the fluoxetine and placebo groups, respectively (p=0.04).

Conclusion: Fluoxetine has no clinically significant cardiac conduction effects in depressed patients with either healthy hearts or those following a first MI, even in the presence of an average of five cardiovascular comedications.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR638 Thursday, May 20, 12 noon-2:00 p.m. Efficacy and Safety of Rivastigmine in Alzheimer's Disease Patients with Vascular Risk Factors

Vinod Kumar, M.D., Department of Psychiatry, University of Illinois, 912 South Wood Street, Chicago IL 60612; Kiminobu Sugaya, Ph.D., John Messina, Ph.D., Jeff Veach, M.S.

Summary:

Objective: To analyze the efficacy and safety of rivastigmine in Alzheimer's disease (AD) patients with vascular risk factors.

Methods: In various double-blind, parallel, placebo-controlled studies, rivastigmine was administered to 435 AD patients, Hachinski score 0 and 809 AD patients, Hachinski scores 1-3. The placebo group included Hachinski (0) 222, and Hachinski (1-3) 379 AD patients. Rivastigmine was given in the doses 1-4 and 6-12 mg for 26 weeks. Data were analyzed by anova and Latin Squiro with posthoc analysis of Fisher's protected LSD and Duncan multiple range.

Results: The results showed that rivastigmine improved cognition (ADAS-cog) significantly more in AD patients with high Hachinski scores compared with the placebo group ($p<.0001$) and AD patients with zero Hachinski scores ($P=0.0265$).

Conclusions: Rivastigmine showed positive effects on cognition in AD patients with vascular risk factors. This effect could be explained as a clear effect of cholinesterase inhibitors or specific properties of rivastigmine as has been illustrated in animal studies.

This study is supported by Novartis Pharmaceuticals Inc.

NR639 Thursday, May 20, 12 noon-2:00 p.m.
Evaluation of Patients Converted from Brand Name Clozaril to Generic Clozapine

Vinod Kumar, M.D., Department of Psychiatry, University of Illinois, 912 South Wood Street, Chicago IL 60612

Summary:

Objective: To evaluate the methods of conversion of patients treated with Clozaril®, a trade drug, to a generic drug, ZGP clozapine, and the efficacy as well as adverse events.

Method: We evaluated the data entered into the ZGP registry of the clozapine patients. 8,254 patients had the complete data set (mean age 45 ± 15), dosage of the Clozaril®, dosage of ZGP clozapine, the side-effect profile and other demographics. It is recommended that a patient can be started on a dosage of ZGP clozapine, which is equivalent to the current dosage of branded Clozaril®. All the information was screened and if required, a telephone call was made to the pharmacist or physician to confirm patient data and therapy status.

Results: 8,254 patients were converted to the generic clozapine from Clozaril® (Novartis) with the average dose of 378 mg per day. At the time of evaluation, these patients have been on the generic clozapine up to 300+ days. The review of the data suggests that it is effective and safe to convert patients from branded Clozaril® to ZGP clozapine when treating psychotic symptoms.

Conclusion: The review of the clozapine registry data on several thousand patients converted from branded to generic product indicate that ZGP clozapine is as safe and effective as Clozaril®.

NR640 Thursday, May 20, 12 noon-2:00 p.m.
Citalopram Treatment of Fluoxetine Nonresponders

Michael E. Thase, M.D., Western Psychiatric Institute, 3811 O'Hara Street, Pittsburgh PA 15213; R. Bruce Lydiard, M.D., John P. Feighner, M.D.

Summary:

Objective: To evaluate the response to treatment with citalopram, a selective serotonin reuptake inhibitor (SSRI), in depressed patients who have failed to respond to the SSRI fluoxetine.

Method: A total of 57 patients experiencing an ongoing DSM-IV–defined major depressive episode who had failed to respond to a minimum of six weeks of fluoxetine treatment were switched to citalopram. Citalopram treatment was initiated at a dose of 20 mg once daily on the day after the last dose of fluoxetine. During the 12-week treatment period, citalopram, could be titrated to a maximum dose of 60 mg/day, if necessary. Therapeutic response was assessed on the basis of the Hamilton Depression Rating Scale (HAMD) and the Clinical Global Impressions (CGI) scale.

Results: The study is presently ongoing, and 31 patients have completed treatment to date. The "next day" switch from fluoxetine to citalopram has been well tolerated, and only three patients (5%) have discontinued because of adverse events. Among patients completing the study, 72% were rated as citalopram responders on the CGI, and the mean HAMD decreased from 26.2 on the last day of fluoxetine to 12.9 on the last day of citalopram.

Conclusion: Depressed patients who are discontinuing fluoxetine treatment because of an insufficient therapeutic response can be safely switched on the following day and successfully treated with another SSRI, citalopram.

NR641 Thursday, May 20, 12 noon-2:00 p.m.
Fluoxetine Treatment of Depressed Patients with Comorbid Anxiety Disorders

Shamsah B. Sonawalla, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WAC 812, Boston MA 02114; Mark G. Pingol, B.A., Margarita L. Delgado, B.A., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., Jerrold F. Rosenbaum, M.D., Maurizio Fava, M.D.

Summary:

Background: Major depression with comorbid anxiety disorder is associated with poor antidepressant outcome compared with major depression without comorbid anxiety disorder. The purpose of our study was to assess changes in severity of both depressive and anxiety symptoms in outpatients with major depression with comorbid anxiety disorder following fluoxetine treatment.

Methods: We enrolled 32 outpatients (mean age: 40.7± 10.0; 40% women) with major depressive disorder (MMD) accompanied by one or more current comorbid anxiety disorders in our study. Patients were treated openly with fluoxetine 20 mg/day for eight weeks. Efficacy assessments included the 17-item Hamilton Rating Scale for Depression (HAM-D) and the patient-rated Symptom Questionnaire (SQ) Scales for Depression and Anxiety. The mood and anxiety disorder modules of the Structured Clinical Interview for DSM-III-R were administered at screen and endpoint.

Results: The mean number of comorbid anxiety disorders per patient was 1.4 ± 0.7. The mean HAM-D-17 score decreased significantly from 19.8 ± 4.1 to 11.3 ± 7.2 following fluoxetine treatment. The mean anxiety-SQ score and the mean somatic symptom-SQ scores dropped significantly by week four and the mean anger-hostility-SQ score and the mean depression-SQ score dropped significantly by week two ($p<0.05$ and $p<0.05$ respectively). Sixteen of the 32 patients (50%) were depression responders (i.e. ≥ 50% decrease in HAM-D-17 score) at endpoint (week 8), with 11 (34%) losing one or more of their anxiety disorder diagnoses at endpoint.

Conclusion: Our preliminary findings suggest that fluoxetine is effective in treating outpatients with major depression with

comorbid anxiety disorders, with a significant effect on both depression and anxiety symptoms. Further double-blind, placebo controlled trials are needed in larger samples to confirm our findings.

NR642 Thursday, May 20, 12 noon-2:00 p.m. Differences Between Dropouts and Completers of a Long-Term Antidepressant Trial

Shamsah B. Sonawalla, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street/WAC 812, Boston MA 02114; Amy Farabaugh, M.A., Vinita Leslie, M.A., Laura Polania, B.A., Joel Pava, Ph.D., John D. Matthews, M.D., Maurizio Fava, M.D.

Summary:

*Objective:*The purpose of this study was to assess the differences between dropouts and completers, and differences between early and late dropouts in the continuation phase of a clinical, trial.

Methods: We studied 119 outpatients who were treatment responders in an eight-week open treatment with fluoxetine 20 mg/day and who were then enrolled in a 26-week continuation clinical trial. Patients were assessed using the SCID-II, HAM-D-17, Beck Depression Inventory (BDI), and the Anxiety Sensitivity Inventory (ASI) at baseline.

Results: Eighty-three patients (70%) (46 women and 37 men) completed the study and 36 patients (30%) (16 women and 20 men) dropped out. Mean age of completers was 42.1± 9.0 years and that of dropouts was 36. 1 ± 11.1 years ($p<0.01$). Younger age was the only significant predictor of dropouts, though there was a trend for dropouts to have higher scores on the ASI compared with completers, after adjusting for age ($p=0.06$). Eleven (30.5%) of the 36 patients dropped out early (defined as within the first two-weeks), and 25 patients (69.5%) dropped out later during the continuation phase. There was not a significant difference in mean age between early and late dropouts. Early dropouts had significantly higher scores ($p=0.01$) on the BDI at the beginning of the continuation phase and a significantly longer duration ($p=0.01$) of the current major depressive episode compared to late dropouts. Late dropouts were significantly more likely ($p=0.05$) to have obsessive-compulsive personality disorder, while early dropouts were more likely to have passive-aggressive personality disorder ($p=0.03$).

Conclusions: Our data suggest that age is a significant predictor of dropping out of long-term clinical trials. Further, severity and length of depression are predictors of early dropouts. Certain personality traits are also predictors of early versus late dropouts.

NR643 Thursday, May 20, 12 noon-2:00 p.m. Prevention of Depression Recurrence with Citalopram: Results from a Double-Blind, Placebo-Controlled Trial

Alan G. Wade, Community Pharmacy Services, 11 Hume Street, Clydebank Glasgow G81 2TQ, United Kingdom

Summary:

Objective: To evaluate the effectiveness of the selective serotonin reuptake inhibitor citalopram in the prevention of depression recurrence.

Method: Patients meeting DSM-IV diagnostic criteria for major depression with a history of at least two prior depressive episodes received six-nine weeks of acute open treatment with citalopram (flexibly dosed, 20-60 mg/day). Responders, defined by a total score <12 on the Montgomery Asberg Depression Rating Scale (MADRS), received 16 weeks of continuation treatment at their established effective dose. Patients who continued to respond were randomized to 48 weeks or longer of double-blind treatment with either continued citalopram or placebo. Depression recurrence was defined as a MADRS, total score >22.

Results: A total of 269 citalopram responders were randomized to double-blind treatment. Survival analysis demonstrated that the rate of depression recurrence was significantly lower in patients receiving citalopram maintenance therapy than in patients receiving placebo.

Conclusion: Long-term maintenance treatment with citalopram is effective in the prevention of depression recurrence.

NR644 Thursday, May 20, 12 noon-2:00 p.m. Dysphoric Symptoms Associated with Leuprolide

Julia K. Warnock, M.D., Department of Psychiatry, University of Oklahoma, 2808 South Sheridan, Suite 200, Tulsa OK 74129-1014; J. Clark Bundren, M.D., David W. Morris, M.A.

Summary:

Objectives: Patients treated for endometriosis with gonadotropin releasing hormone (GnRH) agonists, such as leuprolide, typically experience physical and psychiatric side effects. Evidence indicates that depressive disorders may be precipitated in normal women during the course of GnRH agonist therapy. This study evaluated the hypothesis that patients requiring GnRH agonist therapy for endometriosis will have less depressive symptoms if they are treated with sertraline as compared with a control group on GnRH agonist therapy.

Study Design: Mood assessments with the Hamilton Rating Scale for Depression (HRSD) were performed at monthly intervals on women with laparoscopically diagnosed stage II, II, and IV endometriosis who were undergoing GnRH agonist therapy (3.75mg IM Q 28 days). Fourteen psychiatrically well women ages 24 to 36 in an academic Ob/Gyn practice participated. The double-blind, placebo-controlled study participants were randomly assigned to either the treatment (sertraline) or control (placebo) condition for the duration of the six-month GnRH agonist therapy.

Results: A preliminary chi square comparison found significantly ($p < 0.05$) more patients in the control group (placebo, n=8) with depressive symptoms (cut-off = HRSD ≥10) at the 2nd, and 3rd month assessments than their counterparts in the treatment condition (sertraline, n=6).

Conclusions: GnRH agonists are associated with an increase in depressive mood symptoms. Treatment with sertraline appears helpful in the management of these depressive symptoms.

This work was supported in part by Pfizer Inc.

NR645 Thursday, May 20, 12 noon-2:00 p.m. Efficacy of Sertraline in Long-Term OCD Treatment: Preliminary Results of a Multicenter Study

Lorrin M. Koran, M.D., Department of Psychiatry, Stanford University, 401 Quarry Rd, OCD Clin #2363, Stanford CA 94305; Delbert G. Robinson, M.D., Elizabeth Hackett, Ph.D., Arkady Rubin, Ph.D., Robert Wolkow, M.D.

Summary:

Objective: Obsessive-compulsive disorder (OCD) typically requires long-term treatment. The current study was undertaken to evaluate long-term efficacy and safety of sertraline treatment in OCD.

Methods: Outpatients with DSM-III-R OCD were treated for 52 weeks with single-blind sertraline followed by randomization of responders (Y-BOCS decreased by at least 25% and CGI-Improvement of 1,2, or 3) to 28 weeks of double-blind, placebo-controlled treatment. Efficacy was evaluated by the YBOCS, NIMH global scale, CGI-Severity, CGI-Improvement, and Q-LES-Q (quality of life) ratings.

Results: 649 subjects from 21 U.S. centers entered the study; at week 52, 224 subjects were randomized, 110 to sertraline and 114 to placebo. More than 90% of responders to the first 16 weeks of therapy maintained considerable improvement during weeks 17-52 of single-blind treatment. Rates of discontinuation due to relapse or insufficient clinical response (9% in sertraline group vs. 24% in placebo group) and rates of acute exacerbation of OCD (12% in sertraline group vs. 35% in placebo group) were each statistically significant ($p<0.001$). Sertraline was statistically more effective than placebo as measured by change from double-blind baseline to endpoint on all the efficacy and the Q-LES-Q scores.

Conclusion: Sertraline was effective in long-term treatment in OCD for up to 80 weeks. Sertraline treatment was substantially better than placebo in prevention of worsening of OCD symptoms. In addition to the efficacy, the safety profile of long-term sertraline treatment will also be reported.

NR646 Thursday, May 20, 12 noon-2:00 p.m.
Citalopram Plus Clomipramine for Refractory OCD

Lorrin M. Koran, M.D., Department of Psychiatry, Stanford University, 401 Quarry Rd, OCD Clin #2363, Stanford CA 94305; Stefano Pallanti, Ph.D., Rogerio Paiva, Leonardo Quercioli

Summary:

Background: We studied efficacy of citalopram 40 mg/day versus citalopram plus clomipramine 150 mg/day in refractory obsessive-compulsive disorder (OCD).

Methods: 16 adult outpatients participated in a 90-day, randomized, open-label trial. Eligible patients were aged 18-45 years, had DSM-III-R OCD of $\geq$ 1 year's duration, a baseline Yale-Brown Scale (Y-BOCS) score of $\geq$ 25, no other active Axis I diagnosis, and had failed adequate clomipramine and fluoxetine trials We also treated with citalopram six OCD patients intolerant of fluoxetine alone and clomipramine alone.

Results: The citalopram-plus-clomipramine group (n=9) had a significantly larger percent decrease in mean Y-BOCS score at day 90 than the citalopram-alone group (n=7) (54.2%±9.4% versus 20.1%±14.4%, $p<0.001$). All nine citalopram-plus-clomipramine patients achieved decreases of $\geq$ 35% versus only one citalopram-alone patient. Side effects were mild to moderate in both groups. Three of our six SRI-intolerant patients achieved Y-BOCS decreases $\geq$ 35% at 90 days on citalopram.

Conclusion: Citalopram-plus-clomipramine may be effective in refractory OCD; increased clomipramine levels are not a likely explanation. The 50% response rate to citalopram in our six SRI-intolerant patients suggests citalopram is effective for OCD. Double-blind controlled trials are needed to test our results.

NR647 Thursday, May 20, 12 noon-2:00 p.m.
Fluoxetine Treatment of Atypical Depression

Patrick J. McGrath, M.D., Therapeutics, NY State Psychiatric, 1051 Riverside Drive, Unit 51, New York NY 10032; Jonathan W. Stewart, M.D., Frederic M. Quitkin, M.D.

Summary:

Our objective was to estimate the efficacy of the selective serotonin reuptake inhibitor fluoxetine in the treatment of atypical major depression, a well-validated and common subtype. One hundred fifty-four subjects with DSM-IV major depression who met Columbia criteria for atypical depression were randomized to fluoxetine, impramine, or placebo treatment for a 10 week clinical trial. In both intention-to-treat and completer samples, both medications were significantly better than placebo and no different from one another. Significantly more patients dropped out on impramine than on fluoxetine. Patients with atypical depression rated themselves very impaired on the psychological dimensions of general health and moderately impaired on physical dimensions, compared with population norms. Responders to treatment largely normalized on these measures.

Despite earlier data, which suggested that SSRI's might be the treatment of choice for atypical depression, fluoxetine appeared to be no better than imipramine in this group, although it was better tolerated. Although fluoxetine may be less effective than monoamine oxidase inhibitors, its tolerability and superiority to placebo make it a reasonable first choice in atypical major depression.

Funding for this study provided by Eli Lilly and the State of New York.

NR648 Thursday, May 20, 12 noon-2:00 p.m.
Prevalence of Polypharmacy in Different Clinical Settings and Its Relation to Drug-Drug Interactions

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Summary:

Due to advances in pharmacodynamics and pharmacokinetics, drug-drug interactions can be better classified and anticipated. Selection of drugs and dosages can be based on these considerations. There is, however, a lag between development of this knowledge and its meaningful dissemination to practicing physicians. The purpose of this study was to survey the frequency and nature of polypharmacy as practiced in different treatment settings: 1) a university outpatient psychiatric clinic (n=224); 2) a health maintenance organization (HMO) (n=1968); 3) a university outpatient HIV clinic; and 4) a VA Medical Center (n= 1076) with inpatients and outpatients treated by either primary care physicians or various specialists. Only patients on at least one antidepressant were included. Pharmaceutical products consisting of more than one drug were counted as separate chemical entities. Analysis of data showed:

	U. Psych.Clinic	HMO	U. HIV Clinic	VA Med.Ctr
Pts on 1 drug	29%	22%	2%	7%
Pts on 2 drugs	24%	18%	12%	12%
Pts on 3 drugs	17%	16%	9%	13%
Pts on 4+ drugs	30%	44%	77%	68%
χ # drugs prescribed	3	4	7	6

Polypharmacy during antidepressant treatment is the rule rather than the exception. Hence, a sizable percentage of patients are at potential risk for drug-drug interactions.

NR649 Thursday, May 20, 12 noon-2:00 p.m.
Hypercalcemia, Arrhythmia and Mood Stabilizers

Marion E. Wolf, M.D., Department of Psychiatry, VA Medical Center, 3001 Green Bay Road, North Chicago IL 60064; Vasant Ranade, Ph.D., John C. Somberg, M.D., George Lutz, Ph.D., Aron D. Mosnaim, Ph.D.

Summary:

Calcium and lithium play an important role in the genesis of arrhythmia. The finding of a severe bradyarrhythmia in a hypercalcemic bipolar patient on maintenance lithium therapy prompted us to conduct a retrospective study of bipolar patients with lithium-associated hypercalcemia. Information Resource Management at our medical center generated a printout of all hyercalcemias during a one-year period. After elimination of spurious hypercalcemias or those associated with IV fluids, we identified 18 non-lithium-treated patients with hypercalcemia related to malignancies and other medical conditions (group A), and 12 patients with lithium-induced hypercalcemia (group B). Patients in group B were not comparable to those in group A as the latter were medically compromised and receiving multiple pharmacotherapies. Thus, two control groups were generated, group C1 that included age and sex comparable bipolar normocalcemic patients and group C2 that included bipolar patients treated with anticonvulsant mood stabilizers. The ECG findings in patients in group B were compared with those in group CI and C2. It was found that these groups did not differ in their overall frequency of ECG abnormalities; however, there were significant differences in the frequency of conduction defects. Bipolar patients with lithium-induced hypercalcemia had the highest frequency of bradycardia and/or conduction defects. Patients in group A had a significant mortality rate at a two-year follow-up (28%) in agreement with the figures reported in the literature, in contrast with zero mortality among patients in the other three groups. The clinical implications of these findings will be discussed.

NR650 Thursday, May 20, 12 noon-2:00 p.m.
Treatment of Generalized Social Phobia

Svein Blomhoff, M.D., Psychosomatic, National Hospital, Pilestredet 32, Oslo N0027, Norway; Tone T. Haug, M.D., Mads Humble, M.D., Kerstin Hallstrom, Ph.D., Hans P. Madsbu, M.D., Jane E. Wold, M.D., Ingar Holme, Ph.D.

Summary:

Objective: Most generalized social phobia patients are treated in general care; however, no treatment study has so far been carried out in general practice. We studied the efficacy of sertraline, exposure therapy, and combined sertraline/exposure therapy compared with placebo in general practice.

Method: In a 24 weeks, multicenter, double blind study 375 patients were randomized to receive either sertraline 50 to 150 mg or matching placebo. In both treatment groups patients were additionally randomized to receive either exposure therapy or general medical care. Exposure therapy was given by general practitioners in 8 sessions of 20 minutes duration. Full or partial response demanded agreement between physician (Clinical Global Impression) and patient (Social Phobia Scale).

Results: Sertraline (p=.002) and combined sertraline/exposure therapy (p=.001) were significantly superior, exposure borderline superior to placebo (p= .089). In the combined treatment group, a trend towards faster onset of improvement and increased number of full responders was observed.

Conclusions: Sertraline is effective and safe in the treatment of generalized social phobia. Brief exposure therapy, administered by general practitioners, may be a treatment alternative for some patients. Combined sertraline and exposure treatment seems to be particularly effective in general practice treatment of the disorder.

Pfizer Pharmaceutical Group, Inc has funded the study.

NR651 Thursday, May 20, 12 noon-2:00 p.m.
Cytochrome P450 Metabolism of Bupropion

Elizabeth Goodale, Glaxo Wellcome, Five Moore Drive, RTP NC 27709; John A. Ascher, M.D., Sharyn Batey, Pharm.D., Barbara Haight, Pharm.D.

Summary:

Objective: The purpose of this study was to identify the cytochrome P450 (CYP) enzymes involved in the metabolism of bupropion.

Method: The metabolism of bupropion was first studied in a panel of human liver microsomal preparations. To identify the specific CYP enzymes involved, bupropion was examined in microsomes containing individually expressed cDNAs for major human CYP enzymes. The metabolism of bupropion was also examined in the presence and absence of several human CYP enzyme-specific chemical inhibitors, namely: 1-aminobenzotriazole (general CYP inhibitor), furafylline (CYP1A2), sulfaphenazole (CYP2C9), quinidine (CYP2D6), troleandomycin (CYP3A4), orphenadrine (CYP2B6), and coumarin (relatively high affinity selective CYP2A6 substrate).

Results: The conversion of bupropion to hydroxybupropion was catalyzed by CYP2B6, 1A2, 2A6, 2C9, 2E1, and 3A4. Hydroxybupropion formation was inhibited by orphenadrine by 71.9%, and less so by the other inhibitors. Threohydrobupropion was not detected, suggesting that CYP enzymes are not involved in its formation.

Conclusions: In summary, hydroxybupropion and threohydrobupropion are the major metabolites of bupropion produced by human liver microsomes. The formation of hydroxybupropion is catalyzed by CYP2B6, 1A2, 2A6, 2C9, 2E1, and 3A4. The formation of threohydrobupropion is not catalyzed by CYP enzymes

This study was funded by a grant from Glaxo Wellcome, Inc.

NR652 Thursday, May 20, 12 noon-2:00 p.m.
Antidepressants in Nursing Mother-Infant Pairs

Catherine M. Piontek, M.D., Department of Psychiatry, Case Western Reserve Univ, 11400 Euclid Avenue, Ste 280, Cleveland OH 44106; Katherine L. Wisner, M.D., Kathleen S. Peindl, Ph.D.

Summary:

Background: There have been 19 published cases of nortriptyline (NTP) levels in breast-feeding mother-infant pairs, six of which included infants who were four weeks of age and one of which included a prematurely born infant whose level was obtained at three weeks of age. Herein we report NTP levels from seven additional mother-infant pairs. Five of the infants were four weeks of age, the other two were 12 and 8 weeks of age. We also report clomipramine (CMI) levels obtained from mother-infant pairs when the infants were three weeks of age, one of whom was born prematurely.

Methods: Sera were obtained from mother-infant pairs who either were participating in a randomized clinical trial (Prevention of Recurrent Postpartum Depression) or were in open treatment.

Results: Of the infants exposed to NTP, one (aged four weeks) had a very low but quantifiable NTP level; one (aged 12 weeks)

had a very low E-hydroxy-NTP level. Of the infants exposed to CMI, the infant born prematurely had very low levels of CMI metabolites. Levels in the remaining infants were undetectable.

Conclusion: Even in very young and/or premature nurslings, levels of NTP and CMI are very low or undetectable.

Funded by USPHS Grant MH-53735 from the NIMH to KL Wisner, M.D.

NR653 Thursday, May 20, 12 noon-2:00 p.m.
Schizophrenia Treatment and Its Associated Side Effects: The Attitudes and Perceptions of Health Care Professionals, Patients and Their Caregivers

Jonathan S.E. Hellewell, Department of Psychiatry, Trafford General Hospital, Moorside Rd Davyhulme, Manchester, United Kingdom

Summary:

Treatment with conventional antipsychotics is associated with a high level of non-compliance; this may be due largely to side effects, in particular extrapyramidal symptoms (EPS). Reported here are the results of a multinational survey undertaken to investigate attitudes towards treatment and side effects. Interviewees included psychiatrists and other healthcare workers, patients and carers. The survey was carried out in six countries (Canada, France, Germany, Italy, UK and USA) and focused particularly on EPS and sexual dysfunction. 1380 participants expressed their views, 615 of whom were patients with a clinical diagnosis of schizophrenia, all of whom were living in the community. The patients' views were contrasted with those of the healthcare professionals. Over half (56%) of the patients questioned admitted to not taking medication as agreed; side effects were recognized by both patients and healthcare professionals as a major contributor to non-compliance, psychiatrists identifying EPS as the main contributor. Despite this, the survey suggested that a proportion of psychiatrists do not normally discuss side effects, such as EPS and sexual dysfunction, with their patients. Furthermore, many patients appeared not to report these symptoms to their doctors, for example 74% of patients with sexual dysfunction said they had not communicated this to their doctor. Moreover, both psychiatrists and nurses appeared to underestimate the prevalence of EPS and sexual and hormonal side effects among patients, when compared with the experiences of the patients themselves (psychiatrists estimated EPS affects 63% of patients, nurses estimated 22%, whereas 87% of patients clearly described having experienced EPS). Clear differences were seen between psychiatrists and patients in their perceptions of the response to both EPS and sexual dysfunction. These findings suggest a need for a more proactive and open approach to the recognition and management of the side effects of antipsychotic treatment.

NR654 Thursday, May 20, 12 noon-2:00 p.m.
Biology of Sertraline in Diabetic Neuropathy

Paul J. Goodnick, M.D., Department of Psychiatry, University of Miami, D79, 1400 NW 10th Avenue, Ste 304 A, Miami FL 33136; Liana Mendosa, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D., C. Lindsay Devane, Ph.D.

Summary:

Sertraline, a highly selective serotonin reuptake inhibitor (SSRI), has been previously reported to improve comorbid diabetes mellitus & depression (Goodnick et al, 1997) as well as ameliorate diabetic neuropathy (Goodnick et al, 1998). Platelet 5HT content has also been related to response to sertraline (Goodnick et al, 1997, 1998). In the current replication, a lower dose of sertraline (50 mg/day) was administered to 7M & 5F (mean age=57.8 ± 4.2 yrs, mean of 3.9 yrs of neuropathy). In the clinical results previously reported (Mendosa et al, 1998), self-ratings of pain, paresthesia, & numbness as well as MD observer ratings of pain, paresthesia, & numbness all improved significantly (<.01). In the current report, biological results of HbA1c, platelet 5HT content, & plasma sertraline are discussed. 1) HbA1c levels dropped from 9.5 to 8.8 (t=2.1,<.08). 2) As expected, platelet 5HT content fell from 49.9 to 6.2 (t=8.1,<.01); 3) Baseline platelet 5HT content correlated with improvement in MD pain ratings (.65,<.05); 4) Plasma sertraline levels correlated with both improvement in self-rating (.69,<.05) as well in MD ratings (.62,<.10) of numbness. Thus, although larger samples are needed, these results support sertraline's ability to reduce HbA1c as well as the application of platelet 5HT content and plasma sertraline to clinical situations.

NR655 Thursday, May 20, 12 noon-2:00 p.m.
Biology of Nefazodone in Diabetic Neuropathy

Paul J. Goodnick, M.D., Department of Psychiatry, University of Miami, D79, 1400 NW 10th Avenue, Ste 304 A, Miami FL 33136; Karen Breakstone, M.D., Blanche Freund, Ph.D., Adarsh Kumar, M.D., C. Lindsay Devane, Ph.D.

Summary:

Previous research has indicated the value of serotonergic agents in diabetic neuropathy. (Sindrup 1994). Nefazodone, a serotonergic agent with combined 5HT2 postsynaptic and 5HT reuptake blockade presynaptic effects, was hypothesized to be successful in pain relief. The protocol, which was completed in 10 male patients with a mean age of 65.8 ±11.4 yrs & a history of a mean of 4.9 yrs of diabetic neuropathy, had each take a maximal dose of 450 mg/day. No patient had symptoms of major depression (mean HDRS=2.8). It was found that in self-ratings, both pain and paresthesia significantly responded (.05), and in observer ratings, pain, paresthesia, and numbness improved (.05)(Breakstone et al, 1998). At the present time, we are presenting further results on biological results: HbA1c, platelet 5HT content, and plasma nefazodone. 1) In those with abnormal HbA1c baseline (>7.0), NFZ produced significant improvement (t=4.1, p<.01), 2) HbA1c improvement related to baseline plt 5HT (0.60,<.10); 3) change in pain was related to change in plt content (.92,<.05), 4) change in numbness was related to final plt 5HT (.88,<.05); 5) change in pain was related to plasma NFZ (.88,<.10), 6) change in paresthesia was related to plasma NFZ (.80,<.10). Finally, plasma NFZ was related to change in platelet 5HT content (.72,<.10). Thus, nefazodone can be a successful treatment for diabetic neuropathy; biological parameters of platelet 5HT content and of plasma nefazodone were found associated with improvement. Replication with larger samples is indicated.

NR656 Thursday, May 20, 12 noon-2:00 p.m.
Quetiapine Improves Psychotic Symptoms Associated with Parkinson's Disease

Jorge L. Juncos, M.D., Neurology, Emory School of Medicine, 1841 Clifton Road NE, Atlanta GA 30329; Paul P. Yeung, M.D., Dennis Sweitzer, Ph.D., Lisa A. Arvanitis, M.D., Charles B. Nemeroff, M.D.

Summary:

The incidence of psychotic symptoms in patients with advanced Parkinson's disease (PD) is ≤ 40%. These symptoms are frequently precipitated by treatment with anticholinergic and dopaminergic agents, but withdrawal of these agents or treatment with conventional antipsychotics can lead to intolerable motor disability. Quetiapine fumarate, a recently approved antipsychotic, is effective in treating the positive and negative symptoms of psychosis, is well tolerated, and does not differ from placebo in the incidence of extrapyramidal symptoms or elevations of plasma prolactin. In addition, quetiapine has been shown to be safe and effective in elderly patients with psychotic disorders. We present results from an exploratory analysis of the effects of quetiapine on the symptoms of PD. We include in the analysis 40 patients (mean age 72.6 years) with advanced PD (mean Hoehn and Yahr Stage 3, or bilateral disease with balance impairment), who were part of a larger (n=184), one year trial of quetiapine in elderly psychotic patients. Patients could receive from 25 to 800 mg/day of quetiapine, dosed according to clinical response and tolerability, for up to one year. Assessments included the Brief Psychiatric Rating Scale (BPRS), Clinical Global Impression Severity of Illness Score (CGI-S), the Unified Parkinson's Disease Rating Scale (UPDRS), and the Modified Schwab and England Activities of Daily Living Scale (MSEADLS). The BPRS and CGI improved by 30% to 40% by Week 12 and remained significantly improved throughout the 52-week trial. The improvement from baseline in mean UPDRS score was statistically significant through Week 12; at Week 12, patients who improved outnumbered those who worsened by about 4 to 1. At baseline, 60% of the patients had a MSEADLS score of ≤ 40, but by Week 12, disability scores improved and only 37.9% had a score of ≥ 40; by Week 52, MSEADLS scores had returned to baseline and 60.6% of patients had a score of ≤ 40. The results of this exploratory analysis show that quetiapine is an effective and well tolerated antipsychotic in patients with PD. The short-term improvement in PD motor performance remains unexplained but underscores quetiapine's lack of extrapyramidal side effects.

NR657 Thursday, May 20, 12 noon-2:00 p.m.
Risperidone Dosing Pattern, Effectiveness and Outcome: Post-Marketing Survey in India

Amresh Shrivastava, Kumar, M.D., Silver Mind Hospital, Shivkripa, Gokhale Rd Naupada, Thane Mumba 400602, India, Sanjay Gupta, M.D., Murthy R. Srinivasa, M.D., Rajeshkumar C. Maniar, M.D., Gpd Rao, M.D., Nilesh Shah, M.D.

Summary:

Objective: Considerable differences have been reported in prescribing pattern of risperidone and its efficacy. Eastern countries in particular have recorded low dose usage of conventional antipsychotics. Present study was planned to see dose-related efficacy in a nationwide sample.

Method: Data was compiled from a perspective, open level, variable dose, design of risperidone in acute symptoms of chronic schizophrenia. Efficacy was assessed using CGIS and PANSS over three months.

Results: 484 (80%) of 606 patients completed study. At the endpoint 35.5% patients were significantly improved on 2 mg/day, 54.5% on 2 to 4 mg/day and 10% on 4 to 6 mg/day (stat. sig. in ps, ns, PAANSS at 3 months). Patients maintained on 2 mg/day had significantly shorter duration of illness (12.9 months, x 12.9, SD 13.4, p,0.0005, 4-6 mg - > 28 months). Dosing did not differ on other clinical and demographic parameters. 48.5% (n=294) patients concomitantly received another antipsychotic and 10.2% antiparkinsons, 14.5% (n=82) showed EPS, akathesia being commonest (9>1%, n=55)

Conclusion: Ninety percent patients in Indian survey required less than four mg/day dose and 35% needed only 2 mg. 15% only had EPS.

Study supported by Janssen Silag - India.

NR658 Thursday, May 20, 12 noon-2:00 p.m.
Antidepressant-Induced Sexual Dysfunction: A Multicenter and Prospective Study Using a Questionnaire of 693 Patients

Angel L. Montejo, M.D., Department of Psychiatry, CS Alamedilla, AV Comuneros 27-31, Salamanca 37003, Spain; Gines Llorca, M.D., Juan A. Izquierdo, Enrique Daniel, M.D., Jesus Derecho, M.D., Manuel Arias, M.D., Work Group of Spain

Summary:

Introduction: Antidepressants are frequently associated with sexual dysfunction (SD) mainly SSRIs, venlafaxine and clomipramine. Other antidepressants with different mechanism of action seems to have a few sexual side effects (nefazodone, mirtazapine, bupropion, amineptine and moclobemide). The real SD incidence is underestimated and the use of a specific questionnaire is needed.

Methods: The authors analyse the incidence of antidepressant-related sexual dysfunction in a multicenter, prospective and open-label study collecting data from 1995. 693 outpatients (398 women, 295 men; mean age = 40.2±11.3) were interviewed using the "Sexual Dysfunction Questionnaire" (Montejo et al, 1996) which includes questions about libido, orgasm, ejaculation, erectile function and general sexual satisfaction. Patients with previous normal sexual function and treatment with antidepressants alone were included.

Results: There were relevant differences comparing the incidence of any type of SD between different drugs: fluoxetine (57.8%), sertraline (60.8%), fluvoxamine (64%), paroxetine (67.1%), citalopram (80%), venlafaxine (68.8%), clomipramine (88.9%), mirtazapine (28.7%), amineptine (12.7%) and nefazodone (7.1%). About 33% of these patients showed bad tolerance to their dysfunction. Some patients experienced substantial improvement when they were switched to other drugs being the rate of improvement (intent-to-treat) analysis the following: nefazodone (71.5%), mirtazapine (70%) and amineptine (80.7%).

Conclusion: The incidence of SD with SSRIs, venlafaxine and clomipramine is high ranging from 60% to 89% as compared with 5HT2 bloquers (nefazodone and mirtazapine) or dopaminergic agents (amineptine). Switching patients to other drugs seems to be a useful method to treat successfully this side effect.

NR659 Thursday, May 20, 12 noon-2:00 p.m.
Switching to Nefazodone in Patients with Antidepressant-Induced Sexual Dysfunction

Angel L. Montejo, M.D., Department of Psychiatry, CS Alamedilla, AV Comuneros 27-31, Salamanca 37003, Spain; Gines Llorca, M.D., Juan A. Izquierdo, Fernando Rico, M.D., Enrique Daniel, M.D.

Summary:

Introduction: Sexual side effects (affecting libido, orgasm, ejaculation and erectile function) have been reported with most anti-

depressants, being especially frequent with clomipramine, SSRIs and venlafaxine. Treatment strategies of this troublesome adverse effect include decrease the dose, drug holidays, use putative antidotes (cyproheptadine, bethanecol, yohimbine.) and switch to an alternative antidepressant therapy. Nefazodone is an effective and well-tolerated antidepressant which has been documented to cause very few sexual function side effects.

Methods: This prospective open-label study evaluates the potential value of switching to nefazodone in patients experiencing antidepressant-induced sexual dysfunction. Twenty-eight patients (20 women, 8 men) who experienced intolerable sexual dysfunction with paroxetine (11), sertraline (5), fluvoxamine (4), fluoxetine (3), citalopram. (2), venlafaxine (2) and clomipramine (1) were switched to nefazodone. The severity of sexual dysfunction was rated with a clinician improvement subscale included in a Sexual Dysfunction Questionnaire (Montejo et al, 1996) which is scored from 0 (totally improved) to 4 (no improvement).

Results: Six (21.5%) patients did not tolerate the change due to either a high initial dose or lack of an appropriate wash-out period. Twenty (71.5%) were rated as totally or much improved and 2 (7%) as mildly improved. Mean time to patients improvement was 11 days. Antidepressant effect was maintained in all 22 patients that were successfully switched.

Conclusion: Switching to nefazodone is an efficacious strategy for treating antidepressant-induced sexual dysfunction.

NR660 Thursday, May 20, 12 noon-2:00 p.m.
Gabapentin in Patients with Aggressive Symptoms

Zaffora Carmelo, M.D., Ausl 3, Salute Mentale, Corso Italia 234, Catania 95100, Italia; Bruno Commodari, M.D.

Summary:

Gabapentin (GBP) has been reported to reduce manic symptoms in bipolar patients. The aim of this open trial was to assess its therapeutic role in patients with severe aggressive symptoms. Inclusion criteria were: diagnosis of major psychiatric disorder following DSM-IV criteria, age > 18 years and at least one hospitalization because of eteroaggressive behavior. GBP was administered at doses between 900 and 2000 mg/day, for 6 months. Evaluations were made at baseline and every month with the Retrospective Overt Aggression Scale (ROAS), the Clinical Global Impression of Change (CGIC) and the Staff Observation Aggression Scale (SOAS).

We enrolled 8 patients, 6 M and 2 F, with different psychiatric diagnosis, all with severe aggressive behavior. During the 6 months of the study a significant decrease in the number of hospitalizations because of aggressive episodes was observed and the severity of the episodes was significantly reduced. The patients were rated by the physician and by their relatives to be less impulsive and more adequate to their social environment. We conclude that GBP might be used in the therapy of the patients whose psychiatric disorder is characterized by prevailing aggressive symptoms and that controlled studies should be conducted.

NR661 Thursday, May 20, 12 noon-2:00 p.m.
Drug and Resource Use Evaluation of Risperidone and Olanzapine in Inpatients with Outpatient Follow-Up

David M. Gardner, Pharm.D., Department of Psychiatry, Dalhousie Univ/Qeiihsc 3005, 5909 Jubilee Road, Halifax NS B3H 2E2, Canada; Allister Woodman, B.Sc., Linda J. Grasswick, M.D., Lili C. Kopala, M.D.

Summary:

Objective: To compare drug prescribing patterns, resource utilization, and clinical outcomes of inpatients (with outpatient follow-up) receiving either risperidone or olanzapine.

Methods: 78 consecutive records of inpatients diagnosed with a chronic psychotic disorder who received risperidone or olanzapine during hospital stay were reviewed. Data of past antipsychotic use, compliance history and other factors putatively related to prognosis were collected. Response was rated blindly. After discharge, time to relapse and resource use were documented.

Results: Inpatient response rates (RSP: 72%, OLZ: 58%) and length of stay marginally favoured risperidone (62±43 days) over olanzapine (77±51 days). Daily dose and cost ($CDN) at discharge for risperidone was 3.4±2.0 mg ($3.27/day) and for olanzapine 17.0±7.0 mg ($11.45) ($p<0.001$). Concomitant use of other antipsychotics with risperidone and olanzapine occurred in 64% and 82% of patients ($p<0.1$). There were no important differences in age, sex, duration of illness and diagnosis. Switching between agents only went from risperidone to olanzapine (n=11). Outpatient data continue to be collected.

Conclusion: Risperidone use was associated with clinical outcomes at least as good as olanzapine with less resource utilization. Some differences between the groups may account for some of the results.

Funding: grant from Janssen-Ortho Inc.

NR662 Thursday, May 20, 12 noon-2:00 p.m.
High-Dose Haloperidol Treatment

Jan Volavka, M.D., Clinical Research, Nathan S. Kline Institute, 140 Old Orangeburg Road; Orangeburg, NY 10962; Leslie L. Citrome, M.D., Thomas B. Cooper, M.A., Pial Czobor, Ph.D., Jean-Pierre Lindenmayer, M.D., Pavel Mohr, M.D., Nigel M. Bark, M.D.

Summary:

Objective: To find out if high-dose, long-term antipsychotic treatment prescribed on the basis of clinical judgment is justified.

Method: Patients with schizophrenia or schizoaffective disorder who were receiving high doses of haloperidol were screened. Patients whose plasma levels were at least 15 ng/ml during the baseline period (3 weeks) were randomly assigned to experimental group (N=11) or to control group (N=12). The experimental group underwent a dose reduction to achieve the target plasma level of 10 ng/ml. The reduction was gradual over a period of 12 weeks. The control group treatment was maintained at the original level. Both groups were then followed up for another 16 weeks during which the plasma levels of haloperidol were kept constant. The study used double-blind procedures. Evaluations consisted primarily of serial administrations of the Positive and Negative Syndrome Scale, Nurses' Observation Scale for Inpatient Evaluation, Simpson-Angus Scale, and Abnormal Involuntary Movements Scale.

Results: Both groups showed an average slight symptom reduction. There was no significant difference in the severity of symptoms between the two groups at any time point. The dose reduction had no apparent adverse effects.

Conclusions: Data from this small study provided no support for the high-dose long-term antipsychotic treatment.

This research was supported by grant # RO1 MH41772 from the National Institute of Mental Health.

NR663 Thursday, May 20, 12 noon-2:00 p.m.
Fluoxetine Efficacy and Safety: Analysis by Gender

Rajinder A. Judge, M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center DC 2434, Indianapolis IN 46285; Denni M. Millard, M.S., Stephanie Koke, M.S., Jill Gonzales, B.S.

Summary:

Objective: Assess the efficacy and safety of fluoxetine in depressed male and female patients.

Methods: 2747 depressed patients from 11 double-blind, placebo-controlled, clinical trials were assessed. Baseline-to-endpoint reduction in HAMD-17 was used to assess efficacy. Response and remission rates were also analyzed. Safety assessments included treatment-emergent adverse events (AEs), reasons for discontinuation, and AEs leading to discontinuation. Two populations, 20mg/day and all dosages (20-80mg/day), were analyzed by gender.

Results: Within each dosage population, fluoxetine-treated patients demonstrated statistically significantly greater remission and response rates and mean changes on the HAMD-17 than placebo-treated patients regardless of gender. AEs among subgroups were not markedly different from the known safety profile. Percentages of patients discontinuing due to AEs and incidences of specific AEs leading to discontinuation were generally low, with no notable gender differences within either dosage population. In the 20 mg population, percentages of fluoxetine-treated patients discontinuing due to AEs versus placebo-treated patients were not statistically significant for either gender (males: fluoxetine, 3.2%; placebo, 6.1%; $p<0.384$ / females: fluoxetine, 7.9%; placebo, 5.7%; $p=0.480$).

Conclusion: This meta-analysis further confirms the safety and efficacy of fluoxetine in treating depressed patients of either gender at 20mg/day, as well as with any therapeutic dose (20 to 80mg/day).

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR664 Thursday, May 20, 12 noon-2:00 p.m.
Effectiveness and Tolerability of Adderall in Adults with ADHD

Thomas J. Spencer, M.D., Department of Psychiatry, Massachusetts General Hospital, 15 Parkman Street, ACC 725, Boston MA 02114; Timothy E. Wilens, M.D., Joseph Biederman, M.D., Jacob B. Kagan, B.A., Sarah K. Bearman, B.A.

Summary:

Objective: To examine the effectiveness and tolerability of Adderall in adults with attention deficit hyperactivity disorder.

Method: This was a randomized, 7-week placebo-controlled crossover study of Adderall in adult (N=23) patients with DSM-IV ADHD using standardized instruments for diagnosis, separate assessments of ADHD, depressive and anxiety symptoms. Study medication was titrated up to 20 mg/day by week one (10 mg B.i.D.), 40 mg/day (20 mg b.i.d.) by week two and 60 mg/day (30 mg b.i.d.) by week three unless adverse effects emerged. Improvement was defined as a reduction in the ADHD rating scale of $\geq$ 30% and much or very much improved on the Clinician's Global Impression Scale.

Results: We are reporting preliminary results on the first 23 patients. Adderall was well tolerated and effective. There was a very significant drug by time interaction for ADHD symptoms. Using a pre-established definition of improvement, there was a higher response rate for ADHD symptoms during (74% vs. 0%; $p<0.001$; Adderall vs. placebo treatment respectively).

Conclusion: Though preliminary, our data demonstrate a robust response for ADHD adults consistent with that seen in ADHD children. Although our design did not permit the separation of dose and time effects, our data suggest that adults require robust dosing to attain adequate clinical response. Furthermore, our adults readily tolerated a robust dose.

Funding Source: Shire Richwood Pharmaceuticals

NR665 Thursday, May 20, 12 noon-2:00 p.m.
An Open-Label Trial of Nefazodone for the Treatment of Major Depression in Congestive Heart Failure

Francois Lesperance, M.D., Montreal Heart Institute, 5000 Belanger Street East, Montreal QC H1T 1C8, Canada; Nancy Frasure-Smith, Ph.D., Jean-Lucien Rouleau, M.D., Marc-Andre Laliberte, M.D., Sylvain Lafontaine, M.D., Michel White, M.D., Robert Leroux, M.D.

Summary:

Objectives: Depression is associated with increased mortality in cardiovascular disorders. Patients at very high cardiac risk may experience the greatest risk reduction benefit from treatment of depression. Preliminary efficacy and safety data for nefazodone was sought in patients with congestive heart failure (CHF).

Methods: We conducted an open-label 12-week study of treatment of major depression in 21 patients with left ventricular ejection fractions $\leq$ 40% (LVEF).

Results: Five women and 16 men, aged 38 to 77, with a mean LVEF of 28.5% took part. Thirteen were class 2 and 9 were class 3 on the New York Heart Association classification. Fifteen completed the trial. Final median daily dosage of nefazodone was 400 mg. Mean Hamilton Scores dropped from 25.8 to 8.2 ($p<.001$), and Beck Depression scores dropped from 29.7 to 11.1 ($p<.001$). There was no change in resting heart rate or supine blood pressure (BP). There was a small drop in standing BP (126/78 to 118/73).

Conclusions: There was significant clinical improvement with nefazodone in a sample of depressed patients with moderate to severe CHF. Randomized controlled trials are justified to confirm efficacy and safety in this very high risk population.

Funded by Medical Research Council of Canada and Bristol-Myers Squibb.

NR666 Thursday, May 20, 12 noon-2:00 p.m.
One Year of Quetiapine Fumarate Availability: Any Evidence of Cataract Risk?

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Summary:

Patients with schizophrenia have a higher risk for ocular pathology than the general population, including lens opacities (21.7% in a recent study). Exposure to certain conventional neuroleptics is but one of several risk factors for cataracts in schizophrenia. Quetiapine fumarate is a novel antipsychotic introduced in September 1997. The prescribing information for quetiapine in Canada and the U.S. contains a recommendation, under the precautions section, for examination of the lens at initiation of treat-

ment and at six month intervals during maintenance treatment to check for possible cataract formation. The first author requested the manufactures of quetiapine (Zeneca Pharmaceuticals) to provide information regarding spontaneous reports of lens opacities that were filed with Zeneca during the first year of quetiapine use in order to estimate the frequency of lens changes in patients receiving quetiapine. Zeneca provided data on the total number of patients who received quetiapine from September 1997 through December 1998, as well as spontaneous reports of lens opacities filed by physicians during this time period.

According to independent audit figures, 112,000 patients received quetiapine in the USA during the above period of time. Five (0.004%) reports of lens opacities were filed by treating psychiatrists. However, none of the five reports were deemed related to quetiapine therapy. The reports consisted of 4 females and one male, ages 50, 55, 53, 28 and 76 respectively, and whose treatment durations were 1, 2, 4, 6 and 11 months. Lens opacities were unilateral in three patients and bilateral in two (one of whom was probably related to age). These data do not support a causal link between quetiapine and lens opacities. However, the data have important limitations. As with all prescription drugs, under-reporting of events may occur despite the precaution stated in the prescribing information. In addition, most of the 112,000 patients may not have received quetiapine for a sufficient duration to be conclusive with regards to development of lens opacities. Finally, when considering the clinical advantages of a novel antipsychotic like quetiapine against the very low occurrence of reported lens changes, it is important to be cognizant of the need for continued postmarketing surveillance to reach more definitive conclusions regarding this issue.

Supported in part by the VISN 16 MIRECC (Dr. Nasrallah).

NR667 Thursday, May 20, 12 noon-2:00 p.m. Bupropion Sustained Release Treatment of Bereavement

Sidney Zisook, M.D., Department of Psychiatry, VA Medical Center, 3350 La Jolla Village Drive, San Diego CA 92161; Stephen R. Shuchter, M.D., Simona C. Deaciuc, M.D., Pedrelli Paola

Summary:

Objective: Although psychiatry has evolved away from the concept of reactive depression, when a depressive syndrome closely follows the loss of a loved one, the syndrome is called "Bereavement" rather than major depression. Yet recent findings suggest that when a major depressive syndrome follows the loss of a loved one it has most of the clinical characteristics of other major depressions. However, there is not yet systematically gathered data testing whether such syndromes respond to standard antidepressant treatment. This study is meant to begin to fill that important knowledge gap.

Method: Twenty recently bereaved widows and widowers experiencing a major depressive syndrome were recruited from death certificate records. At intake, they received a Structured Clinical Interview for DSM-IV (SCID) to confirm the diagnosis. They also were administered the Inventory of Complicated Grief (ICG) to measure grief and the Hamilton Depression Rating Scale (HDR-17) to access depression severity. Subjects were treated with bupropion SR 150-300mg. daily for 8 weeks.

Results: Eighty percent of the subjects were widows and the mean age was 61 years. Although the present episode began after the spouse's death in all subjects, 20% had previous major depressive episodes. Mean HDR-17 scores decreased from 15.5 to 7.7. and 50% of subjects experienced a reduction of >50% on the HDR-17. The mean total score on the ICG decreased from 36 to 28. The correlation between changes in the HDR-17 and ICG was .45.

Conclusions: Major depressive syndromes developing within 2 months of widowhood (called "bereavement" in the DSM-IV) appear to respond to treatment with bupropion-SR. This is further evidence that depressive syndromes following loss may be more appropriately conceptualized as major depressive episodes than as "bereavement". In addition, grief intensity lessens over 8 weeks of active treatment in direct relationship to reductions in depressive symptom severity. Further double blind studies are warranted.

NR668 Thursday, May 20, 12 noon-2:00 p.m. Combined Administration of Citalopram and the CYP3A4 Substrate Triazolom: A Pharmacokinetic Drug Interaction Study

Arno Nolting, M.D., Forest Laboratories, 909 Third Avenue, 24th Floor, New York NY 10022; Wattanaporn Abramowitz, M.D.

Summary:

Objective: To determine whether coadministration of the selective serotonin reuptake inhibitor citalopram affects plasma levels of the benzodiazepine triazolam, which is metabolized via the cytochrome P450 3A4 isozyme.

Method: This was an open-label study conducted in 18 healthy male and female volunteers. All subjects received a single initial dose of 0.25 mg triazolam. After a 3-day washout period, subjects received 4 weeks of once daily citalopram (1 week of 20 mg/day followed by 3 weeks of 40 mg/day). On the last day of citalopram administration, another single dose of 0.25 mg triazolam was administered. Pharmacokinetic parameters were determined after the single dose administration of triazolam alone, after administration of citalopram alone at steady state, and after coadministration of citalopram and triazolam. Blood samples were analyzed for triazolam, citalopram, and their metabolites.

Results: The pharmacokinetics of triazolam, and α-OH triazolam with regard to maximum plasma concentration, area under the concentration-time curve, and elimination half-life were unaffected by the presence of coadministered citalopram. Triazolam appeared to be absorbed more quickly (shorter time to maximum plasma concentration) when it was administered together with citalopram. Pharmacokinetic parameters of citalopram and its metabolites were no different in the presence or absence of triazolam.

Conclusion: In agreement with in vitro studies demonstrating no effect of citalopram on the CYP3A4 isoenzyme, no pharmacokinetic interaction between citalopram and triazolam was observed in this clinical study, suggesting that triazolam and other CYP3A4 substrates can be safety coadministered with citalopram.

NR669 Thursday, May 20, 12 noon-2:00 p.m. Effectiveness of 20mg/day Citalopram in the Prevention of Depression Relapse

Stuart A. Montgomery, M.D., 19 St. Leonard's Road, London W13 8PN, England

Summary:

Objective: To evaluate the effectiveness of 20 mg/day citalopram in the prevention of depression relapse.

Method: A pooled analysis was conducted of two studies with

a double-blind discontinuation design. In both studies patients with a DSM-III-R diagnosis of major depression received an initial 6 or 8 weeks of citalopram treatment. Responders were randomized to 24 weeks of either continued citalopram or placebo. Response and relapse were prospectively defined on the basis of the Montgomery Asberg Depression Rating Scale total score. Rate of relapse was compared using the log-rank test between patients who continued citalopram 20 mg/day and patients switched to placebo.

Results: Each of the studies demonstrated significantly lower relapse rates in citalopram patients relative to placebo patients. A total of 96 patients were randomized to 20 mg/day citalopram and 116 patients were randomized to placebo during the 24-week double-blind treatment period. In the pooled analysis, the incidence of depression relapse was 27% in the placebo group and 9% in the 20 mg/day citalopram group, a significant difference (P=.002).

Conclusion: Continuation treatment with 20 mg/day citalopram is effective in the prevention of depression relapse.

NR670 Thursday, May 20, 12 noon-2:00 p.m. Continuous Duration of Antipsychotic Therapy: Are There Differences Between Subclasses or Among Agents?

William F. Signa, B.S., Information Operations, PCS Health System, 9501 East Shea Blvd/MC034, Scottsdale AZ 85260; David S. Hutchins, M.B.A., Bryan M. Johnstone, Ph.D., Sandra L. Tunis, Ph.D.

Summary:

Purpose: This retrospective study examined duration of antipsychotic therapy differences between novel and conventional agents and among chlorpromazine, clozapine, haloperidol, olanzapine, and risperidone.

Method: Patients (n=105,960) dispensed an antipsychotic agent between October 1, and December 31, 1996 had antipsychotic prescriptions extracted for one year before and after their first antipsychotic prescription from a large US prescription database. Initiators (patients with no prior antipsychotic use, n=5,197) were categorized into novel, conventional, chlorpromazine, clozapine, haloperidol, olanzapine, and risperidone cohorts with subsets for ages 18 to 64 and for initiators with two or more prescriptions. Continuous duration of therapy was measured by summing the days supplied for each prescription to a patient prior to a 45-day gap. Distributions for cohorts were tested using Kaplan-Meiers.

Results: Continuous duration of therapy was significantly ($p \leq 0.0001$) longer for all novel cohorts across all subsets. Likewise, continuous duration of therapy was significantly ($p \leq 0.0001$) different among the five agent cohorts across all subsets. Pairwise comparisons between individual agents also revealed significant results.

Conclusion: Patients dispensed novel antipsychotics received significantly longer medication therapy than those dispensed conventional antipsychotics, suggesting potential treatment benefits from prescribing novel antipsychotic medications.

Research funded by Eli Lilly and Company.

NR671 Thursday, May 20, 12 noon-2:00 p.m. Olanzapine Treatment Response Among Forensic Psychotic Inpatients

Simon S. Chiu, M.D., Department of Psychiatry, University of Western Ontario, PO Box 2004 Stn. Main, St. Thomas ON N5P 3V9, Canada

Summary:

Objective: To evaluate the clinical efficacy and tolerability of the atypical psychotic, olanzapine, among psychotic forensic inpatients.

Methods: The study design was prospective, naturalistic and open-label. Psychotic patients (n=50 were referred to forensic units of regional psychiatric hospital from court and jail for stabilization and for assessment of competency to stand trial and criminal responsibility. They were treated with olanzapine mean dosage 14.5 mg ±4.8 mg) for 8 weeks. Clinical efficacy was assessed with the Clinical Global Impression (CGI) as well as Global Assessment Functionaling Scale (GAF). Tolerability was examined with monitoring of treatment-emergent adverse events.

Results: 44% of patients had the DSM IV-diagnosis of schizophrenia, whereas 30% were diagnosed as schizoaffective disorder, with 12% diagnosed as bipolar affective disorder, 8% major depression with psychotic features and 6% as psychosis not otherwise specified. All the patients had history of violent offenses including arson, aggravated assault and attempted murder. 72% of the patients had a history of intolerance or refractory to typical antipsychotic medication. As compared to baseline values, both the CGI and GAF scores at the end of the 10-week treatment period were statistically significantly (pair t test, $p < 0.01$) improved. The CGI score after treatment was 1.7 ± 0.6, with 76% of the patients rated as markedly-moderately improved. 78% of the patients reported no clinically significantly adverse events. Restlessness was noted in 14% of the patient sample, with 6% reporting sedation and 4% edema.

Conclusion: Olanzapine appears to be efficacious and well-tolerated among psychotic forensic inpatients with a history of violence. Further controlled studies to examine the selective effects of olanzapine reducing aggressive behavior of psychotic patients are warranted.

NR672 Thursday, May 20, 12 noon-2:00 p.m. Open Risperidone in Pervasive Developmental Disorder: Efficacy and Dyskinesias

Richard P. Malone, M.D., Department of Psychiatry, EPPI, 3200 Henry Avenue, Philadelphia PA 19129; Roomana M. Sheikh, M.D., Muniya S. Choudhury, B.A., Anca S. Amighi, M.D., Reza Amighi, M.D.

Summary:

Background: Haloperidol, the best-established drug treatment for children with pervasive developmental disorder (PDD), can induce dyskinesias. Little data on efficacy and or data on dykinesias in PDD exist for novel neuroleptics. This study reports such data for open-label risperidone.

Methods: Subjects were 22 outpatients (18 males), mean age 7.1 years, diagnosed with PDD (DSM-IV). Mean risperidone dosage was 1.2 mg/day. Measures included the Clinical Global Impressions (CGI), Children's Psychiatric Rating Scale (CPRS), and Abnormal Involuntary Movement Scale. Subjects were assessed at baseline and after one month of treatment. Those benefiting were continued on drug for 6 months and evaluated monthly, including for dyskinesias. After 6 months, drug was discontinued to assess need for further treatment and withdrawal dyskinesias.

Results: At one month of drug, CGI improvement was: 4 children (18.2%) very much improved; 13 (59.1%) much improved;

4 (18.2%) minimal improvement; and no change in 1 (4.5%). On the CPRS, there was significant improvement on the Autism, Anger/Uncooperativeness, and Hyperactivity Factors. Of the 22 children, 12 were treated for 6 months and withdrawn from drug with 2 (17%) developing mild reversible withdrawal dyskinesias. No child developed dyskinesias on drug.

Conclusion: Risperidone shows promise as a treatment for PDD. Some children developed withdrawal dyskinesias, suggesting risperidone may induce tardive dyskinesia. Controlled trials in children with PDD are needed, as well as further study regarding dyskinesias.

This work was supported in part by the NIMH KO7 MH00979 (Malone).

NR673 Thursday, May 20, 12 noon-2:00 p.m.
Evaluation of the Interchangeability of Generic Clozapine with Brand Name Clozapine

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Summary:

Psychoactive drugs have exhibited a history of problems associated with bioequivalence. The interchangeability of generic and brand name drugs is determined by bioequivalency studies following FDA guidelines. The recent availability of generic clozapine that is significantly less expensive than Clozaril has rekindled this discussion.

Forty-one patients with a diagnosis of schizophrenia/schizoaffective disorders stabilized on Clozaril for 6 weeks or more were changed to equal doses of generic clozapine. Serum levels were monitored every 2 weeks, 6 weeks before and after the change. All patients were assessed with PANSS and Drug Attitude Inventory 1 week prior and 2 weeks after the switch.

Mean age of the patients was 47 ± 14 years and length of stay was 9 ± 10 years. 71% were men and 84% were Caucasian. Clozaril dose was 512 ± 241 mg and clozapine dose was 513 ± 235mg. Clozaril serum level was 286 ± 165 ng/ml and clozapine was 280 ± 230 ng/ml. PANSS on Clozaril was 95± 30 and 94± 30 on clozapine. Student's t test did not show any significant difference for dose, serum level and PANSS score at 0.05 level.

Based on our results, clozapine and Clozaril are interchangeable mg per mg in our population.

NR674 Thursday, May 20, 12 noon-2:00 p.m.
Impact of Atypical Antipsychotics on Prescriptions of Typical Antipsychotics and Clozapine

Geetha D. Chandrasekhar, M.D., Department of Psychiatry, Scott & White, 2401 South 31st Street, Temple TX 76508; Kimberly C. Burke, M.S., Cheryl Preece, M.S., Jack D. Burke, Jr., M.D.

Summary:

Objective: This report examines the pattern of prescriptions for two atypical antipsychotic drugs and the resulting impact on prescriptions of two typical antipsychotic and of clozapine. The purpose is to determine whether the atypical antipsychotics have been used in ways that recognize their reported clinical differences from antipsychotic drugs and from clozapine.

Methods: This retrospective study uses local and national prescription data for four years (January 1994 - December 1997). The number of prescriptions for risperidone and olanzapine was compared to that for haloperidol and thioridazine, as well, as clozapine. The data were obtained from Scott and White Health Plan, which covers 160,000 members in Central Texas and from Scott Levin, a national pharmaceutical consulting firm.

Results: For both the national survey data, and for local health plan data, prescriptions of atypical antipsychotics continued to rise in relation to both typical antipsychotics and clozapine over time. Among these medications, the proportion of clozapine was stable over the four years.

Conclusion: The atypical antipsychotic drugs have shown a continued rise in use in relation to typical antipsychotic drugs. Clozapine's constant share of prescriptions presumably resulted from recognition of its unique properties.

NR675 Thursday, May 20, 12 noon-2:00 p.m.
Effects of Quetiapine on Reducing Hostility and Psychosis in Patients with Alzheimer's Disease

Lon S. Schneider, M.D., Department of Psychiatry, University of Southern CA, 1975 Zonal Avenue, KAM-400, Los Angeles CA 90033; Paul P. Yeung, M.D., Dennis Sweitzer, Ph.D., Lisa A. Arvanitis, M.D.

Summary:

Uncontrolled hostility and psychosis are major reasons for institutionalizing patients with Alzheimer's disease (AD). Standard antipsychotics can reduce hostility and delusions in patients with AD, but can also produce side effects such as extrapyramidal symptoms (EPS). Quetiapine fumarate is an antipsychotic that does not differ from placebo in the incidence of EPS or elevations of plasma prolactin. Preliminary data indicate that quetiapine is effective in aggression and hostility, as well as psychosis. We present results from a 1-year, open-label trial of quetiapine in 184 elderly psychotic patients; mean age 76 years. The most common diagnoses included psychotic symptoms due to Alzheimer's (N=80) disease, Parkinson's disease (N=41), and schizophrenia (N=32). Patients received a median quetiapine dose of 100 mg/day, dosed according to clinical response and tolerability, for up to one year. In an exploratory analysis, hostility was assessed using the BPRS Factor V Score, the BPRS Hostility Item, and a BPRS Hostility Cluster Score. Positive symptoms of psychosis were assessed using the BPRS Positive Symptom Cluster Score. Results presented here are from patients diagnosed with AD (n=80), and the subset of patients with AD who were at least mildly hostile at baseline (Hostility Item ≥ 2; n=46). Significant ($p<0.05$) improvement over baseline score in total BPRS, Factor V, Hostility, and Hostility Item Scores were observed for the hostile AD patients at all time points analyzed (Weeks 2, 4, 8, 12, 24, 36, and 52) and at most time points for AD patients (excluding Week 2 for Factor V and Weeks 2 and 12 for the Hostility Item). Significant ($p<0.05$) improvement in the Positive Symptom Cluster Score was seen at Weeks 12 and 24 for AD patients, and at Weeks 2 through 24 for the hostile AD patients. Importantly, the improvement in hostility measures was disproportionate to the changes in the positive symptoms. Regression analysis suggested that some of the improvement in hostility scores was independent of the improvement in positive symptoms. This exploratory analysis suggests that quetiapine treatment was associated with improvement in both hostility and psychosis in AD patients.

NR676 Thursday, May 20, 12 noon-2:00 p.m.
Computerized Assessment of Antipsychotic-Induced EPS Using Visuo-Manual Testing

Mark Weiser, M.D., Department of Psychiatry, Sheba Medical Center, Tel Hashomer 52621, Israel; Michal Shnaider-Beeri, Ph.D., Shoshana Reiss, R.N., Nitza Nakash, M.D., Samuel Hirschmann, M.D., Shraga Hocherman, Ph.D.

Summary:

Atypical neuroleptics cause fewer EPS then typical neuroleptics. However clinician-administered rating scales of EPS are often unable to differentiate between EPS induced by the various atypical antipsychotics. Visuo-Manual Testing (VMT) is a computerized procedure which yields quantitative information on the ability to control the direction and the speed of hand motion. This procedure consists of a digitizing tablet hidden from the subjects view by an overlying board, upon which a computer monitor is placed. Paths for tracing and tracking are displayed on the computer monitor. A cursor moves on the screen representing the location of an unseen handle which is moved by the patient over the digitizing tablet. The location of the handle is read by the computer.

Objectives: To assess the sensitivity of VMT in quantifying antipsychotic-induced EPS induced by typical and atypical antipsychotics.

Methods: Fifty-three patients suffering from schizophrenia treated with haloperidol (8 patients) olanzapine (29 patients) and risperidone (16 patients) were assessed with VMT and the ESRS, and compared with 25 treatment-free individuals.

Results: 1) As expected, VMT scores were correlated with ESRS scores (r=0.308; p=0.025). 2) A hierarchical pattern of VMT scores was found: typical anti-psychotics (highest)⇒ atypical antipsychotics⇒ treatment-free individuals (lowest), the differences being statistically significant (p<0.05). 3) There were numerical differences between VMT scores of atypical drugs which did not reach statistical significance probably due to inadequate sample size.

Conclusions: These results raise hopes that VMT may be able to quantitatively differentiate between EPS induced by different atypical antipsychotic drugs. More patients must be examined to allow definitive comparisons.

NR677 Thursday, May 20, 12 noon-2:00 p.m.
Nefazodone in Major Depression: Efficacy in Patients with Mild Versus Severe Baseline Sleep Difficulties

Julio B. Bobes, M.D., Department of Psychiatry, University Oviedo, Julian Claveria 6, Oviedo 33006, Spain; Jose L. Ayuso, Ph.D., Juan Gibert, Ph.D., Jeronimo Saiz-Ruiz, M.D., Julio Vallejo, M.D., Fernando Rico-Villademoros, M.D.

Summary:

Introduction: It is believed that sleep regulation improve mood and enhance response to antidepressant treatment. In contrast to SSRIs and venlafaxine, nefazodone doesn't reduce REM activity and increases sleep efficiency and continuity.

Aim: Assess the antidepressant response to nefazodone in depressed patients with mild versus severe insomnia.

Methods: 1483 evaluable (who met entrance criteria and had at least one postbaseline evaluation) nonpsychotic major depressed patients (DSM-IV), > 18 years, were enrolled in a 12-week open-label, naturalistic nefazodone study. At baseline, using HAMD-Sleep Index score, patients were categorized as mild (<4) or severe (≥4) insomniacs. Scores of 1 or 2 on the Clinical Global Improvement Scale were considered as response to nefazodone.

Results: Although severe insomniacs were more depressed at baseline, their CGIS-response rate was higher than in mild insomniacs (78.2% vs. 72.5%, p=.03). Moreover, the greater the score in each of the 3 items of the HAMD-Sleep Index the higher the response rate in the CGIS.

Intial response	CGIS insomnia	Middle response*	CGIS insomnia	Late response*	CGIS insomnia
0	69.9%	0	68.8%	0	69.2%
1	74.7%	1	75.6%	1	76.8%
2	76.9%	2	79%	2	77.3%

*P=.0 1

Conclusion: Nefazodone appears to be especially useful in depressed patients with severe insomnia.

NR678 Thursday, May 20, 12 noon-2:00 p.m.
Adaptation and Validation of the Spanish Version of the Changes in Sexual Functioning Questionnaire

Julio B. Bobes, M.D., Department of Psychiatry, University Oviedo, Julian Claveria 6, Oviedo 33006, Spain; Maria P. Gonzalez, Ph.D., M. Teresa Bascaran, M.D., Fernando Rico-Villademoros, M.D., Pilar Sarasa, Anita L.H. Clayton, M.D.

Summary:

Aim: To adapt and validate the Changes in Sexual Functioning Questionnaire (CSFQ) in Spanish.

Methods: Five consecutive phases: 1-translation and adaptation, 2-pilot, 3-sensitivity, 4-validity, 5-sensitivity to change (presently underway). *The subjects were:* 206 depressed patients from all over Spain and 48 employees and 326 university students from Asturias (Northern Spain).

Results: Feasibility: average answering time 15.4 m (SD4.8), women taking significantly longer than men (18.1 vs. 13.5). University females students left more blank items than working or depressed women (5.5% vs. 0.7% vs. 0.5%). *Reliability:* Internal consistency: in all cases, except for the desire and frequency dimension, Cronbach's alpha was greater than 0.80. Test-retest (one month later): Spearman's coefficient 0.905; Intraclass correlation coefficient 0.946 (IC95% 0.918-0.964). Inter-rater: Spearman's coefficient 0.872; intraclass correlation coefficient 0.93 (IC95% 0.86-0.96). *Validity:* Discriminant validity: CSFQ total score was significantly lower in depressed patients (male 41.6 and female 33.8) than in workers (male 53.6 and female 47.8) and students (male 55.1 and female 38.1). Construct validity confirmatory factorial analysis considering both the whole sample and the depressed patients subgroup, the original model was reproduced better in males than in females. Physiological dimensions were better reproduced than cognitive ones.

Conclusions: the Spanish CSFQ has demonstrated good psychometric properties in a large sample.

NR679 Thursday, May 20, 12 noon-2:00 p.m.
Pattern Analysis of Early Relapse During a Study of Long-Term Antidepressant Efficacy of Fluoxetine

Mark E. Schmidt, M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center DC 0532, Indianapolis IN 46285; David Michelson, M.D., Yongman Kim, Ph.D., Charles M. Beasley, Jr., M.D., Jonathan W. Stewart, M.D., Frederic M. Quitkin, M.D.

Summary:

Objective: The time course of response to antidepressant drugs in clinical trials can follow distinct patterns. Sustained improvement 2-4 weeks after initiating treatment has been proposed to be a 'true drug' effect. Early (1-2 weeks) or fluctuating responses have been hypothesized to be 'placebo responses'. Do patterns of acute response influence the likelihood of early relapse after remission?

Methods: Patients with a major depression (n=839) were entered into a study of the long-term efficacy of fluoxetine. All patients were treated for 12 weeks with fluoxetine 20 mg/day. Remitters (HDRS≤7 for the last 2 weeks, n=395) were randomized to placebo or continued fluoxetine. The effect of acute treatment was analyzed as time to response (50% reduction in HDRS) and persistence of response (CGI-severity). Early relapse was defined as occurring within 2 weeks after randomization.

Results: Assignment to active drug versus placebo was highly associated with risk for relapse across all subjects (odds ratio: OR=2.43). There was a trend for patients classified as having a placebo response to acute treatment to have an early relapse on drug (OR= 1.84).

Conclusion: The strongest predictor of relapse was assignment to placebo. Factors underlying the pattern of acute response may be relevant to early relapse.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 46285.

NR680 Thursday, May 20, 12 noon-2:00 p.m.
Topiramate in Severe Treatment-Refractory Mania

Joseph R. Calabrese, M.D., Global Clinical Research, RW Johnson Pharmacy, 920 Route 202, Raritan NJ 08869; Daniel P. van Kammen, M.D., M.D. Shelton III, M.D., Paul E. Keck, Jr., M.D., Susan L. McElroy, M.D.

Summary:

Topiramate is a structurally novel compound with documented anticonvulsant efficacy and a good safety profile. Topiramate inhibits voltage-activated Na^+ channels and enhances GABA neuroinhibition. It also blocks glutamate activity at non-NMDA receptors and inhibits some isoenzymes of carbonic anhydrase. The objective of this study was to evaluate the antimanic efficacy of topiramate in the acute management of treatment-refractory, hospitalized, mania disorder over a 28-day study period in patients with bipolar I disorder. After a washout period of approximately three days, 11 patients, (mean age, 43, 7 female/4 male), were given open-label topiramate in initial doses of 50 mg/day and titrated upward by 50 to 150 mg increments to a mean (range) last dose of 614 mg/day (50-1300 mg/day). Outcome measures included the YMRS, the 17-item HAM-D, and the BPRS. The mean (range) baseline YMRS was 32 (26-40) and decreased to 22 (2-40). No change in baseline HAM-D was observed at study endpoint. The baseline BPRS was 47 (29-68), and decreased to 39 (18-63). Three subjects exhibited a ≥ 50% improvement in the YMRS and two exhibited 25-49% improvement. Side effects included parasthesia, anorexia/weight loss, constipation, and nausea. The preliminary data suggest topiramate may have efficacy in mania.

Supported by an unrestricted educational grant from Janssen Pharmaceutica.

NR681 Thursday, May 20, 12 noon-2:00 p.m.
Use of Topiramate: A New Antiepileptic Drug Used As a Mood Stabilizer

David B. Marcotte, M.D., Marcotte and Associates, 210 Fairway Drive, Fayetteville NC; E. Gullick, Daniel P. van Kammen, M.D.

Summary:

Several antiepileptic drugs are effective in bipolar disorders. The objective of this study was to evaluate topiramate in mood disorders refractory to previous therapies including lithium and other antiepileptic drugs (valproate, carbamazepine, lamotrigine and gabapentin). Charts of 58 consecutive outpatients were reviewed. Topiramate 25mg/BID was added to existing therapy and titrated in 50 mg increments every 3-7 days to response. Average dose of topiramate was 200 mg. Improvement was rated with a global assessment of sleep, appetite, mood, and concentration. Of 58 patients treated with topiramate, 44 patients had bipolar disorders and 14 had various psychiatric disorders refractory to previous therapies. Marked or moderate improvement was observed in 36 (62%) patients. Minimal/no improvement was observed in 16 patients; 6 were rated as worse. Most of those rated as worse experienced symptoms known to be topiramate-related side effects. Agitation was reported in one patient with generalized anxiety disorder. Confusion and hallucinations developed when topiramate was increased from 200 to 600 mg/day in one bipolar patient who had previous and subsequent episodes of psychotic symptoms when not taking topiramate. Other adverse events were somnolence, fatigue, impaired concentration, and impaired memory. Based on these preliminary findings, topiramate may be useful in mood disorders unresponsive to traditional therapy.

Supported by an unrestricted educational grant from Janssen Pharmaceutica.

NR682 Thursday, May 20, 12 noon-2:00 p.m.
Pilot Trial of Ondansetron in the Treatment of Eight Patients with OCD

William A. Hewlett, M.D., Department of Psychiatry, Vanderbilt University, Medical Center North, Nashville TN 37232; Sabine P. Schmid, Ronald M. Salomon, M.D.

Summary:

Serotonergic neuronal systems have been implicated in the modulation of OCD symptoms. The mechanisms by which serotonin might mediate such symptomatic changes, however, is not known. 5-HT_3 receptor antagonists have been found to act as anxiolytics in selected animal models of anxiety, in particular, those involving an element of risk assessment. Since the compulsions of OCD are frequently triggered by an abnormal perception of risk, a preliminary study was initiated to determine whether the 5-HT_3 receptor antagonist, ondansetron, might have efficacy in reducing OCD symptoms. Eight medication-free subjects having a DSM-IV diagnosis of OCD and a Yale-Brown Obsessive Compulsive Scale (Y-BOCS) score ≥16 entered an eight-week open-label trial of ondansetron @ a dose of 1 mg TID. Three subjects (37%) achieved a clinically significant response (35% reduction in Y-BOCS score). For these subjects, the average reduction in symptoms was greater than 55%. In aggregate, the eight patients exhibited a 28% reduction in Y-BOCS-rated symptoms over the course of the trial. The medication was well tolerated. Caution must be observed in interpreting the outcome of any open-label trial; however, these results suggest that low-

dose ondansetron may have promise as a monotherapy for some patients suffering from OCD.

NR683 Thursday, May 20, 12 noon-2:00 p.m.
The Long-Term Safety and Efficacy of Switching from Lithium to Divalproex in Euthymic Patients who Discontinue Lithium Because of Intolerable Effects

Carlos A. Zarate, Jr., M.D., Department of Psychiatry, University of Mass Med School, 55 Lake Avenue North, Worcester MA 01655; Anthony J. Rothschild, M.D.

Summary:

Background: Little is known about the long-term safety and efficacy of switching from lithium to DVPX in patients who are switched (abruptly or gradually) because of intolerable side effects.

Methods: The medical charts of patients treated in a bipolar clinic who had been treated with lithium monotherapy during the years 1992-1996 were reviewed. Fifty-eight patients were identified who had been treated with lithium monotherapy and had been euthymic for at least 2 months. Of these, 33 patients had discontinued lithium because of an intolerable side effect (12 abrupt and 21 were gradual discontinuation) and were subsequently treated with DVPX. 25 patients remained on lithium for a prolonged period of time and served as the control group. The demographic, clinical characteristics, tolerability of the switch were compared.

Results: The mean duration of follow-up for the 58 patients was 34.6 months. 88% of patients tolerated the switch well or very well. After switching, there was no difference in episodes of illness/year, hospitalizations/year, and ratio of computed time to 50% risk of a first recurrence (18.0 vs. 22.0 months, p=.436) between patients maintained on DVPX and lithium, respectively. There was also no difference in the ratio of computed time to 50% risk of a first recurrence in DVPX maintained patients who had abruptly discontinued lithium vs. those who did not (21.0 vs. 18.0 months, p=.410).

Conclusions: The majority of patients tolerated the switch well. There was no difference in any of the outcome measures used. DVPX appeared to have protective effects in patients who discontinued lithium abruptly. DVPX appears to be reasonable alternative for maintenance treatment in patients who cannot tolerate lithium's side effects.

NR684 Thursday, May 20, 12 noon-2:00 p.m.
Valproate Treatment of Agitation in Depression

Anthony J. Rothschild, M.D., Department of Psychiatry, Univ of Mass Medical Center, 55 Lake Avenue N, Rm S7-802, Worcester MA 01655

Summary:

Objective: Valproate, an anticonvulsant medication that enhances GABAergic neurotransmission, has been shown to be helpful in treating behavioral agitation associated with dementia. The purpose of the present study was to assess the efficacy of valproate in treating agitation associated with major depression.

Method: Twenty outpatients, aged 23-56 years, with unipolar Major Depression and symptoms of agitation were assessed at baseline using the Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Scale (HAS), and the Overt Agitation Severity Scale (OASS). Ten of the patients were treated prospectively with open-label valproate and ten were treated prospectively with open-label sertraline and valproate. Patients were assessed on the HDRS, HAS, and OASS weekly for eight weeks.

Results: In the overall group of twenty patients, scores on the HAS declined from. 29.7 ± 1.3 at baseline to 6.4 ± 3.0 at 8 weeks (t=32.0, df=19, p <.01) and on the OASS from 31.1 ± 4.3 at baseline to 4.2 ± 3. 0 at 8 weeks (t=21.3, df= 19, p<.01). HDRS scores declined in the patients treated with valproate and sertraline as well as in those patients treated with valproate alone, although only in the group treated with both valproate and sertraline was the change in HDRS scores statistically significant. Valproate was prematurely discontinued in only one patient because of side effects.

Conclusion: Valproate may be an effective, well tolerated, and safe treatment for agitation in patients with major depression.

NR685 Thursday, May 20, 12 noon-2:00 p.m.
Effects of Abrupt Discontinuation of Citalopram

John S. Markowitz, Ph.D., Department of Psychiatry, Medical University of SC, 67 President St/PO Box 250861 Charleston SC 29425; C. Lindsay Devane, Ph.D.

Summary:

Although the SSRIs have been associated with a discontinuation syndrome, some appear less problematic than others. We analyzed data from a clinical trial of depressed patients who were openly treated with citalopram (CIT) for 8 weeks. Responders were randomized to double-blind treatment with placebo (PLO) or CIT. PLO-treated patients (n=72) were assessed for treatment-emergent adverse events associated with abrupt termination of CIT, and data compared to patients continuing double-blind treatment with CIT (n=150). The proportion of patients that experienced one or more events over a two week period following randomization was similar in the two groups. Events occurring at a higher frequency in the PLO compared to CIT treated patients were: emotional indifference (5.6% vs. 0.7%), anxiety (5.6% vs. 2.0%); impaired concentration (4.2% vs. 0%); migraine (4.2% vs. 0.7%); tremor (4.2% vs. 0.7%), and paresthesia (4.2% vs. 1.3%). These events could suggest an increase in anxiety accompanying drug withdrawal, but also could reflect re-emergence of depressive symptoms. No exaggerated symptoms were present and most of the events were mild in intensity. No patients randomized to PLO discontinued from the study in the observation period. These data suggest several symptoms may be associated with abrupt termination of 20-60 mg/day of CIT, but the symptoms were mild and did not result in withdrawal from the study.

Supported in part by Forest Laboratories.

NR686 Thursday, May 20, 12 noon-2:00 p.m.
Cost-Effectiveness Evaluation of Divalproex Sodium Versus Lithium in the Treatment of Bipolar Disorder

Robert M.A. Hirschfeld, M.D., Medical Branch, University of Texas, 301 University Boulevard, Galveston TX 77555; Richard H. Weisler, M.D., Paul E. Keck, Jr., M.D., E. Ahern, Dennis Revicki, Ph.D.

Summary:

Rationale: This is the first prospective, randomized, naturalistic trial comparing clinical, quality of life (QOL), and medical cost outcomes of divalproex sodium (DVPX) versus lithium treatment in bipolar disorder.

Methods: Of 221 adults hospitalized for acute mania and randomized to DVPX or lithium plus usual care, 201 were followed

for one year. Patient management was at the psychiatrist's discretion. Assessments at discharge and after one, three, six, nine, and 12 months included: mania and depression symptoms, disability days, QOL outcomes.

Results: Complete follow-up data were available for 81% of patients; 64% continued mood stabilizers beyond three months. Fewer DVPX patients discontinued study medications for lack of efficacy or adverse effects (p=0.035) than lithium patients. No statistically significant differences between groups were observed for clinical symptoms, QOL outcomes, disability days over 12 months. Mean total medical costs for the DVPX group were $28,911 compared with $30,666 for the lithium group (difference: $1,755, 95% CI: -$505, -$3,004).

Conclusion: Treatment with mood stabilizers for longer than three months reduces total medical costs. Higher medication costs in the DVPX group were offset by lower inpatient costs compared with the lithium group, suggesting that DVPX is a cost-effective, long-term treatment for bipolar disorder.

Study supported by Abbott Laboratories.

NR687 Thursday, May 20, 12 noon-2:00 p.m. Citalopram Dosing of Depressed Patients by U.S. Psychiatrists

Robert M.A. Hirschfeld, M.D., Medical Branch, University of Texas., 301 University Boulevard, Galveston TX 77555

Summary:

Objective: To evaluate dosing by US psychiatrists of a recently approved SSRI antidepressant, citalopram, and to compare usage in US clinical practice to prescribing patterns in Europe.

Method: Approximately 600 psychiatrists enrolled about 2000 depressed patients into an 8-week open-label citalopram treatment trial. Scheduled visits were conducted after 4 and 8 weeks of treatment. Recommended dosing was in accordance with the package insert, which calls for a starting dose of 20 mg once daily and a maximum dose of 60 mg once daily.

Results: Dosing data were available from the first 532 patients who participated in the study. The mean final dose was 28.3 mg/day, with 61% of patients taking ≤20 mg/day, including 10% on <20 mg/day, 51% on 20 mg/day, 5% on 30 mg/day, 26% on 40 mg/day, and the remainder on >40 mg/day. By comparison, prescription data derived from European countries reveal that approximately 80% of patients are prescribed doses of 20 mg/day or less, with mean daily doses typically below 25 mg/day.

Conclusion: For citalopram treatment of depression, as for other psychotropics, US psychiatrists tend to use higher doses than are used in standard European clinical practice; nevertheless, as in Europe, they usually do not titrate patients to doses above the recommended starting dose of 20 mg/day.

NR688 Thursday, May 20, 12 noon-2:00 p.m. Therapeutic Equivalence of 50mg and 150mg Sertraline in Outpatient Major Depression: Results from a Clinical Trial

Karl Rickels, M.D., Department of Psychiatry, University of Pennsylvania, 2600 Market Street, Suite 803, Philadelphia PA 19104; Edward E. Schweizer, M.D., Nicholas DiMartinis, M.D., Moira A. Rynn, M.D.

Summary:

Objective: A previous report suggested minimal antidepressant effect accrued when fluoxetine was titrated to a higher dose after non-response at 3 weeks. The current study was undertaken to evaluate whether 50 mg. of sertraline was as effective as 150 mg. in treating major depression.

Method: Eighty-eight patients with DSM-IV major depressive disorder were treated with open label sertraline for 3 weeks. Non-responders (defined as ≤50% Ham-D reduction from baseline) were then randomized to 5 more weeks of double-blind treatment with either 50 mg. of sertraline or immediate titration to 150 mg. of sertraline. Efficacy was assessed with the Hamilton-D rating scale and Clinical Global Impressions Scale.

Results: Preliminary results on 84 subjects entering the trial (mean Ham-D score at baseline approximately 23) indicate that 24 responded after 3 weeks of sertraline 50 mg. and were not eligible for randomization, leaving 60 subjects who were randomized to the 2 dosage groups. At the last double-blind study visit, the mean Ham-D (± SD; LOCF analysis) change scores from baseline for the 50 mg. and 150 mg. groups, respectively, were 12.6 ± 6.8 and 13.5 ± 6.8 (p=ns). Sertraline was well tolerated in both groups, with few discontinuations in either group for adverse events. Results will be presented on 91 patients total.

Conclusion: Sertraline 50 mg. is an effective dose for outpatient major depressive disorder. Further studies are needed to ascertain the optimal waiting period before increasing the dose in patients who are not responding.

This study was funded by an unrestricted educational grant from Pfizer, Inc.

NR689 Thursday, May 20, 12 noon-2:00 p.m. Mirtazapine Treatment of PTSD

Mark D. Herbst, M.D., Department of Psychiatry, Long Beach VAMC, 5901 East 7th Street, Long Beach CA 90822; Kenneth N. Sokolski, M.D., Maryanne Soratorio

Summary:

Objective: The authors report preliminary results of a pilot open label study of mirtazapine treatment of combat related posttraumatic stress disorder (PTSD).

Method: 20 outpatients being treated for combat related PTSD were treated with mirtazapine; mean dose 32.5 mg/day. 40% of subjects were treated with mirtazapine alone; 60% had mirtazapine added to existing SSRI therapy. Diagnostic assessment included the Combat Exposure Scale and Mississippi Scale for PTSD. Outcome measures of CGI, HAM-D and HAM-A were compared before and during mirtazapine treatment.

Results: Mirtazapine was well tolerated both alone and in combination with SSRI's. Eighteen of 20 subjects completed 4 weeks of treatment; 2 subjects discontinued the medication due to side effects. Ratings of depression and anxiety were improved, with HAM-A scores dropping from 32.1 to 15.9 and HAM-D scores changing from 29.5 to 16.1 after 4 weeks of treatment. On the CGI, 15 of 20 reported improvement, particularly in sleep disturbance, anxiety, and irritability.

Conclusions: Mirtazapine pharmacotherapy of PTSD was well tolerated and associated with improvement in open use both alone and with SSRI's. The results suggest that a placebo-controlled trial of mirtazapine treatment of PTSD may be warranted.

The Department of Veterans Affairs and the Long Beach VA Medical Center supported this research.

NR690 Thursday, May 20, 12 noon-2:00 p.m.

An Assessment of Tardive Dyskinesia in Elderly Patients Treated with Haloperidol, Risperidone and Olanzapine

Jacquelyn G. Wilson, Pharm.D., Pharmacy Practice, Wayne State University, 328 Shapero Hall, Detroit MI 48202; Anita Pinkerton, B.S., Martha J. Miller, Pharm.D., Stephen M. Aronson, M.D., Venkata R. Lingham, M.D., Norma C. Josef, M.D., Cynthia L. Arfken, Ph.D.

Summary:

Objective: The prevalence rates of tardive dyskinesia (TD) in the elderly on conventional antipsychotics range from 3% to 40%. The atypical antipsychotics have a lower propensity to induce acute movement disorders but there is limited data on TD in elderly patients. The objective of this study was to compare the incidence and prevalence of TD in elderly patients treated with risperidone, olanzapine or haloperidol.

Methods: A retrospective review of 165 records of elderly (65 yr +) inpatients who had been systematically screened with the Abnormal Involuntary Movement Scale. Excluded were patients receiving the medications for less than 6 months, no baseline TD examination or who had a medical condition or received medications that produce involuntary movements.

Results: The mean duration of exposure to any antipsychotic for the 90 subjects (30 per medication group) was 30 years (range 1-38). There were no new cases or progression of TD in the risperidone or olanzapine groups but 3 new cases of TD and 1 case of worsening TD in the haloperidol group (p=.011).

Conclusion: Our results indicate that chronic treatment with atypical antipsychotics is safe and better tolerated than with haloperidol.

This study was funded by Janssen Pharmaceutica.

NR691 Thursday, May 20, 12 noon-2:00 p.m.

Early Onset of Antidepressant Activity of Venlafaxine Compared with Placebo and Fluoxetine in Outpatients in a Double-Blind Study

Richard L. Rudolph, M.D., Clinical R&D, Wyeth-Ayerst, PO Box 42528, Philadelphia PA 19101; Richard Entusuah, Ph.D., Loren M. Aguiar, M.D., Albert T. Derivan, M.D.

Summary:

Objective: To compare the onset of antidepressant activity of venlafaxine with that of placebo and fluoxetine.

Methods: Outpatients (n=460), who met DSM-IV criteria for major depressive disorder and had a minimum baseline score of 26 on the MADRS, were randomized to treatment with placebo, venlafaxine, or fluoxetine; the venlafaxine and fluoxetine groups were titrated to 300 mg/day or 60 mg/day, respectively, during week 1. The primary efficacy evaluations were time to sustained response (CGI improvement score of 1 or 2; 50% decrease on MADRS total or HAM-D total) and time to sustained improvement (20% decrease on MADRS or HAM-D total); to be classified as sustained, responses and improvements had to persist until the end of the study and be at least 2 weeks in duration.

Results: Based on the CGI improvement scores, the sustained response rates for the venlafaxine and placebo groups at day 7 were 17% and 5%, respectively ($p \leq .001$); at day 14, the corresponding rates were 30% for venlafaxine and 16% for placebo (p=.007). Sustained response and improvement rates were greater with venlafaxine than with fluoxetine during weeks 1 and 2.

Conclusions: Rapid titration of venlafaxine to high doses may offer significant benefits to patients in whom a rapid response to therapy is important.

This study was sponsored by Wyeth-Ayerst Research.

NR692 Thursday, May 20, 12 noon-2:00 p.m.

Activation of Stress-Responsive Hormones Associated with Interruption of SSRI Treatment

David Michelson, M.D., Neuroscience, Eli Lilly and Company, Lilly Corporate Center/DC 2032, Indianapolis IN 46285; Jay D. Amsterdam, M.D., Jeffrey T. Apter, M.D., Maurizio Fava, M.D., Peter D. Londborg, M.D., Roy Tamura, Ph.D., Lisa Pagh

Summary:

Introduction: Depressive illness is associated with loss of the usual regulation of stress-responsive hormonal and neurotransmitter systems. Antidepressants have intrinsic effects reducing the activity of these systems, which may be related to their therapeutic effects. Abrupt interruption of treatment with shorter-half-life agents is associated with a self-limited syndrome of physical and psychological symptoms distinct from relapse. We hypothesized that reactivation of stress-response systems could play a role in this syndrome.

Methods: Patients successfully treated with fluoxetine, sertraline, or paroxetine underwent both 5 day treatment interruption and a 5 day period of continued medication using a 2 period, randomized double-blind cross-over design. Urine for 24 hour UFC, plasma for cortisol, NPY, and IGF-1 determination (drawn at 6PM on the 5th day of each double-blind interval) as well as symptom measures were obtained.

Results: During placebo substitution, the shortest half-life agent paroxetine, but not sertraline or fluoxetine, was associated with a statistically significant increases in plasma IGF-1 and heart rate, and trends towards increases in neuropeptide-Y and UFC, a pattern consistent with the emergence of symptoms.

Conclusion: These data are consistent with evidence demonstrating antidepressant actions on measures of stress-system activity, and provide further evidence of a potential role for the biology of stress-response in the pathophysiology of depression.

Research funded by Eli Lilly and Company, Indianapolis, Indiana 461-85.

NR693 Thursday, May 20, 12 noon-2:00 p.m.

Minimal Interactions Between Zaleplon and Three Psychiatric Agents

Mona Darwish, Ph.D., Wyeth-Ayerst, 145 King of Prussia Road, Radnor PA 19087

Summary:

Objective: Concomitant medication use presents potential for drug-drug interactions. The hypnotic zaleplon (20 mg) was investigated for interactions with each of three psychiatric medications (imipramine 75 mg, paroxetine 20 mg, and thioridazine 50 mg).

Method: Interactions were analyzed in double-blind crossover studies in healthy adults (18-45 yr). Zaleplon was administered at twice its usual dose to increase the likelihood of observing. an interaction. Plasma concentrations of drug and active metabolites (imipramine → desipramine; thioridazine → mesoridazine) were measured. Tapping rate, reaction time, critical flicker fusion, and digit symbol substitution tests (DSST) were used to evaluate pharmacodynamic changes.

Results: Zaleplon did not interact pharmacokinetically with the other agents nor pharmacodynamically with paroxetine. Pharmacodynamic effects with imipramine and thioridazine were typically additive and short-lived (1-2 h), except for a synergistic effect on DSST performance from zaleplon and thioridazine for 4 h post-dose: DSST scores returned to baseline by 8 h.

Conclusions: No pharmacokinetic interactions exist between zaleplon and the other agents. Use of the recommended 10 mg zaleplon dose at bedtime will minimize the clinical relevance of the detected pharmacodynamic interactions. As with all hypnotics, however, caution should be used if zaleplon is used concomitantly with CNS-active compounds.

NR694 Thursday, May 20, 12 noon-2:00 p.m. Risperidone Versus Haloperidol for Schizoaffective Disorder

Philip G. Janicak, M.D., Department of Research, Psychiatric Institute, 1601 West Taylor Street, Chicago IL 60612; Paul E. Keck, Jr., M.D., John M. Davis, M.D., John W. Kasckow, M.D., Karen Tugrul, R.N., Sheila Dowd, M.S., Rajiv P. Sharma, M.D.

Summary

We attempted to clarify the efficacy of risperidone versus haloperidol for schizoaffective disorder. In contrast to schizophrenia, there is a substantial mood component associated with schizoaffective disorder. In addition, there is concern that novel antipsychotics may precipitate manic symptoms, and little data exist to guide appropriate treatment. 60 schizoaffective patients gave informed consent to enter a double-blind, 6 week trial of risperidone (up to 10 mg/day) or haloperidol (up to 20 mg/day). Trained raters assessed baseline, weekly, and end-of-study levels of psychopathology with the PANSS, HDRS and CARS-M rating scales. There were no differences between the two treatment groups on such variables as age, sex, or duration and severity of psychotic symptoms. We utilized a last-observation-carried-forward, (LOCF) endpoint analysis of covariance to assess change scores from baseline. We found no differences between risperidone and haloperidol for the PANSS ($F=0.4$, $df=1,57$, $p=ns$); CARS-M ($F=0.3$, $df = 1,42$, $p=ns$); or HDRS ($F= 1.4$, $df= 1,45$; $p=ns$). Further, schizoaffective subtype (depressed or manic) did not alter the response to risperidone or haloperidol. Based on Simpson Angus scores, haloperidol produced significantly more extrapyramidal symptoms EPS than risperidone ($t=2.1$; $df=57$; $p<.04$). More patients on haloperidol dropped out because of side effects (5 versus 0).

NR695 Thursday, May 20, 12 noon-2:00 p.m. Double-Blind Comparison of Citalopram, Sertraline and Placebo

Stephen M. Stahl, M.D., Department of Psychiatry, University of CA at San Diego, 8899 University Center Ln #130, San Diego CA 92122

Summary:

Objective: To compare the effectiveness of the selective serotonin reuptake inhibitors (SSRIs) citalopram and sertraline in the treatment of symptoms of anxiety in depressed patients.

Method: A total of 323 patients with major depressive disorder were randomized to 24 weeks of double-blind treatment with citalopram (20-60 mg/day), sertraline (50-150 mg/day), or placebo. Anxiety symptoms were evaluated on the basis of the Hamilton Anxiety Scale (HAMA) and the anxiety subscale of the Hamilton Depression Rating Scale (HAMD). The change from baseline to the last observation carried forward at each visit was compared among treatment groups by analysis of variance.

Results: Both citalopram and sertraline produced significant improvement in depressive symptomatology relative to placebo, although the citalopram effect had an earlier onset of action. Citalopram produced significantly greater improvement than both sertraline and placebo on both the FANLA, and the HAMD anxiety subscale, and no significant advantage for sertraline relative to placebo was found.

Conclusion: The present study demonstrated clear anxiolytic effects of citalopram, relative to both sertraline and placebo, in the treatment of depressed patients.

NR696 Thursday, May 20, 12 noon-2:00 p.m. What to Do When Antidepressants Fail?

Verinder Sharma, M.B., Mood Disorder, London Psychiatric Hospital, 850 Highbury Avenue, London ON N6A 4H1, Canada

Summary:

Antidepressants are effective in the acute treatment of depression, and when used during continuation and maintenance therapy, reduce the likelihood of future episodes. However, there are patients who experience a return of depression despite continued treatment. This phenomenon, which occurs with an antidepressant in 9% to 57% of patients on constant continuation and maintenance dose, is referred to as tolerance. Although there are no double-blind, controlled studies in the management of breakthrough depression, increasing or decreasing the dose of antidepressant, discontinuation and a retrial of the same drug, addition of an augmenting or an adjuvant agent and substitution with another antidepressant drug have been recommended as possible treatment strategies. The clinical information about fifteen patients who presented to a specialized mood disorders unit with treatment-resistant depression subsequent to developing a tolerance to at least two unimodal antidepressant drugs from different classes is described. These patients, experienced sustained improvement in their condition following withdrawal of antidepressants and continuation or initiation of mood stabilizers including lithium, divalproex sodium, and carbamazepine. Even though most of these patients had "unipolar depression", the illness behaved as if it was bipolar in most of the patients, thus raising the possibility whether the patients who experience loss of antidepressant response to repeated trials have a phenotypic variant of bipolar disorder. The clinical and diagnostic significance of these findings will be discussed.

NR697 Thursday, May 20, 12 noon-2:00 p.m. A Comparative Pooled Analysis Between Venlafaxine and SSRIs on Remission for Patients with MDD

Richard Entsuah, Ph.D., Clinical Biostatistic, Wyeth-Ayerst Research, 145 King of Prussia Road, Radnor PA 19087; Richard L. Rudolph, M.D., Eliseo Salinas, M.D.

Summary:

Introduction: Remission (wellness) rather than response should be the standard by which the success of antidepressant therapy is judged.

Method: To investigate the ability of venlafaxine and SSRIs to produce remission, eight comparable active control clinical studies with or without placebo were pooled and the remission rates of 895 venlafaxine (75-375 mg/day) treated patients, 769 SSRI treated patients and 453 placebo treated patients were com-

pared. The active controls in the SSRI group were fluoxetine (20-80 mg/day), paroxetine (20-60 mg/day) and fluvoxamine (100 mg-200 mg/day). Remission was defined as a Hamilton Depression Rating Scale (HAM-D) total score of less than 8 and remission rates were compared using Fisher's exact tests.

Results: The pooled overall remission rates at the end of week 8 were 43% for venlafaxine, 33% for SSRI and .21% for placebo. There were significant differences between venlafaxine and SSRIs ($p<.001$) and placebo ($p<.001$) and between SSRIs and placebo ($p<.001$). The overall odds ratio over the eight studies of venlafaxine vs. SSRIs was 1.90 with 95% confidence interval of 1.69 to 2.11.

Conclusion: These data indicate that, over an 8-week period, venlafaxine treatment was associated with a superior remission rate of 43% with an overall odds ratio of approximately 2.0 compared with a remission rate of 33% for SSRI treatment.

NR698 Thursday, May 20, 12 noon-2:00 p.m.
Lorazepam Treatment of Catatonia

Juan C. Gonzalez-Siejo, M.D., Department of Psychiatry, Hospital De Jove, AV Eduardo Castro SN, Gijon 33290, Spain; Yolanda Ramos, M.D., Jose I. Portilla, M.D., Ismael Lastra, M.D.

Summary:

Objective: It has been shown that catatonia responds to ECT and amobarbital sodium and some cases have also improved with neuroleptics, lithium carbonate and carbamazepine. In recent reports data strongly support an important role for BDZ, especially lorazepam. In our study we use lorazepam to treat catatonia.

Methods: The authors report 19 cases of catatonic patient, who responded favorably to lorazepam. We studied 11 women and 8 men with a mean age of 38 years. Diagnosis were done using DSM-IV and the most frequent were schizophrenia (58%) and depression (21%).

Results: The following symptoms were observed in all the patients: inmobility, negativism and staring. There was also mutism (95%), refusal to eat (89%) and rigidity (73%). All cases received treatment with lorazepam and the mean dosage was 2.76 mg (range from 1 to 5 mg). Response was complete in 16 cases (84%) and partial in more 3 cases. Time to improvement ranged from 30 to 120 minutes after lorazepam was administered.

Conclusion: In our experience, lorazepam has very beneficious effects in catatonic symptoms of any aetiology and should be an area for clinical use and further research.

NR699 Thursday, May 20, 12 noon-2:00 p.m.
Quetiapine Fumarate for the Treatment of Dopamimetic Psychosis in Parkinson's Disease

Joseph H. Friedman, M.D., Memorial Hosp of Rhode Island, 111 Brewster Street, Pawtucket RI 02860; Hubert Fernandes, M.D., Carol Jacques, N.P.

Summary:

Objective: We report our experience with quetiapine for the treatment of dopamimetic psychosis (DP) in Parkinson's disease (PD).

Method: 34 neuroleptic-naive patients with active DP and 25 psychiatrically-stable PD patients with a history of DP on other atypical antipsychotic agents were evaluated using BPRS, MMSE, and United Parkinson's Disease Rating Scale (UPDRS) at baseline and at 4 weeks after quetiapine administration.

Results: 59 PD patients received a mean of 44.6 mg of quetiapine daily. 28 of 34 neuroleptic-naive patients had a marked improvement in psychosis. The improvement in BPRS (3.1 vs. 23.2; $p=0.031$;$n=12$) was clinically and statistically significant. Seven of 34 had increased parkinsonism. The mild worsening in UPDRS score was statically significant (45.7 vs. 50.6; $p=0.006$; $n=28$).17 of 25 psychiatrically stable PD patients on olanzapine (3) or clozapine (22) made the crossover to quetiapine without a loss of effect as measured on BPRS and MMSE (30.8 vs. 28.1; $p=0.27$ and 18.6 vs. 19.2; respectively). Failures were due to increased parkinsonism, hallucinations, anxiety/agitation, hypotension and nausea.

Conclusion: Quetiapine is useful and well-tolerated as a first drug to treat PD in most PD patients. It is also an option for psychiatrically-stable PD patients who need a change in their antipsychotic agent.

NR700 Thursday, May 20, 12 noon-2:00 p.m.
A Pilot Study Concerning the Concomitant Use of Risperidone and Mirtazapine

Anton J.N. Loonen, Ph.D., Pharmacology, Delta Psychiatric Institute, PO Box 800, Poortugaal NL 3170DZ, Netherlands; Cees H. Doorschot, M.D., Marc C.J.M. Oostelbos, J.M.A. Sitsen, Ph.D.

Summary:

Rationale: Psychiatric patients may need treatment with both an antipsychotic and an antidepressant drug. Risperidone and mirtazapine are new, widely prescribed drugs. Data on the tolerability of their combination is scarce.

Objective: to evaluate the pharmacokinetic aspects of the concomitant use of risperidone and mirtazapine. To assess the efficacy, safety, and tolerability of their combined usage.

Design: Open label, non-randomized, study consisting of a one- to four-week single drug treatment phase (with either risperidone 1-3 mg bid or mirtazapine 30 mg nocte) followed by a two- to four-week combined drug treatment phase.

Assessments: Trough blood samples were take to measure risperidone, 9-hydroxyrisperidone, and mirtazapine plasma levels. Routine safety assessments were done at baseline and at the end of each treatment phase. Subjectively experienced and motor side effects were assessed by means of the MASEAS and SADIMoD instruments.

Results: Twelve patients were enrolled, nine of whom started with risperidone. Two patients could not be evaluated. Adding mirtazapine to risperidone did not alter the steady-state levels of risperidone nor its metabolite. The combination was well tolerated and no important adverse events were observed. A small shift of the experienced side effects was noted.

Supported by NV Organon, Oss.

NR701 Thursday, May 20, 12 noon-2:00 p.m.
Venlafaxine Dose Treatment in Relapse Prevention for Patients with MDD

Loren M. Aguiar, M.D., Clinical Research, Wyeth and Ayerst, 145 King of Prussia Road, Radnor PA 19010-1022; Dean Lei, Ph.D., Richard Entsuah, Ph.D., Richard L. Rudolph, M.D.

Summary:

Objective: Clinical trials of venlafaxine XR have demonstrated its efficacy and safety in the treatment of patients diagnosed with major depressive disorder. This study was designed to evaluate

venlafaxine XR (75-225 mg/day) in the prevention of relapse in patients with major depressive disorder

Method: The primary efficacy outcome was the number of patients who entered the double-blind period of the study and had a relapse of depression. Time to relapse was analyzed by survival analysis procedure using the log-rank test. Among 480 patients who qualified for an eight-week open-label phase, 293 patients qualified as intent-to-treat patients for the six-month double-blind period.

Result: Cumulative relapse rates were 18.8% and 28.2%, respectively, at three-months and six-months for 154 venlafaxine patients, and 43.6% and 52.8%, respectively, for 139 placebo patients. The Chi-square statistic of the log-rank test was 19.3 with $p<0.001$. During the double-blind period, of 24% of venlafaxine XR-treated patients and 42% of placebo-treated patients discontinued due to unsatisfactory efficacy. Only 7% of venlafaxine XR patients and 10% of placebo patients discontinued due to adverse events.

Conclusion: These data indicate that venlafaxine XR was significantly better than placebo during a six-month double-blind period in preventing relapse of depression in patients who responded to open-label treatment with venlafaxine XR.

NR702 Thursday, May 20, 12 noon-2:00 p.m.
Risperidone Versus Olanzapine: Comparing Clinical Outcomes, a Retrospective Naturalistic Review

Mark H. Snaterse, B.Sc., General Psychiatry, Alberta Hospital, Box 307, Edmonton AB T5J 2J7, Canada

Summary:

Objectives: To compare time to first response and discharge, relapse rates, and drug acquisition costs for risperidone and olanzapine.

Methods: Charts were reviewed for 35 risperidone and 21 olanzapine patients admitted to the general psychiatry units of Mberta Hospital Edmonton over a 12-month period. Only those patients both started and discharged on risperidone or olanzapine were included. Patients with a previous failure on an atypical antipsychotic, enrollment for clozapine treatment, or taking multiple antipsychotics were excluded. Time to and antipsychotic dose at initial response and discharge, and six and 12-month readmission rates were recorded.

Results: Patient characteristics and illness duration were similar between groups, and did not correlate well with any outcomes. Risperidone patients had a significantly shorter time to initial response (14.3 vs. 30.9 days, $p=0.0002$) as well as to discharge (36.6 vs. 5 8.2 days, $p=0.0169$) compared with the olanzapine group. Daily doses at these points generated costs for olanzapine almost twice those of risperidone. The olanzapine group showed almost double the risperidone readmission rate at 12 months (61.9% vs. 31.4%, $p=0.027$).

Conclusion: Risperidone exhibited significant clinical advantages over olanzapine, and may be a more cost-effective option. The quicker onset of action could be due to increased affinity and tighter binding to the dopamine-2 receptor.

NR703 Thursday, May 20, 12 noon-2:00 p.m.
Second Generation Antipsychotics in the Emergency Care Setting: A Prospective Naturalistic Study

Michele Raja, M.D., Department of Psychiatry, S. Spirito, Prisciano 26, Rome IT 00136, Italy; Antonella Azzoni, M.D.

Summary:

Objective: To examine the impact of replacing standard neuroleptics with atypical antipsychotics in an intensive psychiatric care unit.

Method: Mirror-image study. Comparison of the 206 cases admitted in the first semester of the year (when most of psychotic patients were treated with standard neuroleptics) with the 205 cases admitted in the second semester of the year, when atypical antipsychotics (in particular risperidone and clozapine) were utilized as first-line treatment.

Results: In the first semester, patients received a higher daily dosage of antipsychotics and more frequently received anticholinergics. In the second semester, a higher number of patients received anticonvulsants. At discharge, similar percentages of patients went home, were transferred to other PICUs or to private clinics, or left the ward against medical advice. There was no significant difference in the rate of aggressive/violent behavior or in the length of hospitalization between the two groups of cases.

Conclusions: The risk of increasing violence rates, lengthening hospitalization, or facilitating patients noncompliance (for the lack of liquid or injectable form of the atypical antipsychotics) should not be major concern in prescribing atypical antipsychotics in the emergency care setting. Since these drugs have similar or greater efficacy in the treatment of psychotic disorders as typical neuroleptics and have a better side effects profile, they should become first-line treatment of psychotic patients admitted to emergency care psychiatric facilities.

NR704 Thursday, May 20, 12 noon-2:00 p.m.
Antidepressant Discontinuation Therapy for Treatment-Refractory Depression

Marina Auerbach, M.D., Department of Psychiatry, Beth Israel Medical Center, 1st Ave at 16th St/6 Karpas, New York NY 10003; Sean Murphy, B.A., Erik A. Klein, B.A., Eamon Dutta, M.D., Igor I. Galynker, M.D.

Summary:

Background: It has been observed clinically withdrawal from some antidepressants can produce a stable euthymic state and resolution of depressive symptoms. At present, 25% to 35% of patients with MDD show minimal improvement upon treatment with classical antidepressants. In particular, bipolar depression is difficult to treat. The case reports presented suggest antidepressant discontinuation be investigated as a therapeutic modality for the treatment of depression.

Method: Six case reports in which depressive symptoms resolved following abrupt discontinuation of antidepressant therapy are presented. Distinctive features of their clinical presentation, pharmacotherapy, and follow-up are presented. Possible mechanisms of action of such treatment are discussed.

Results: Symptoms of depression resolved in all six of the patients following abrupt discontinuation of antidepressant treatment. All patients had been previously unresponsive to other therapeutic modalities. None of the patients developed mania or experienced autonomic side effects usually associated with antidepressant withdrawal. To date, clinical improvement has lasted from three months to approximately three years.

Conclusions: Upon the basis of these case reports, it is proposed that antidepressant withdrawal phenomenon may result in euthymia or productive hypomania, rather than mania. Abrupt discontinuation of antidepressant therapy can potentially be used for treatment of depression, including treatment-resistant depres-

sion. The positive results of antidepressant withdrawal phenomena should not be overlooked.

NR705 Thursday, May 20, 12 noon-2:00 p.m. Predicting Disability in Chronic Patients with Schizophrenia Undergoing Maintenance Risperidone Treatment

Maria P. Gonzalez, Ph.D., Psiquiatria, Facultad de Medicina, Julian Claveria 6, Oviedo 33006, Spain; Julio B. Bobes, M.D., Miguel Gutierrez, M.D., Juan Gibert, Ph.D., Maria L. Herraiz, M.D., Antonio Fernandez, M.D.

Summary:

Aim: Identify the variables that determine the disability level in chronic schizophrenic outpatients undergoing maintenance treatment.

Methods: Data from 354 patients from all over Spain were analyzed. Assessments were made at baseline and at two, four, and eight months, using the BPRS, CGI, UKU, and the WHO/DAS-S (Short Disability Assessment Schedule).

Results: Mean age 35.1 years (SDI 1), 69.5% males, 76.7% single, and 65.3% had paranoid subtype. Mean age at onset 23 yrs (SD6.8), mean length of illness 11.4 yrs (SD9.2). Baseline scores: global BPRS 24 (SD9.7), global WHO/DAS-S 51.9 (SD 19.1). Month 8 scores: global BPRS 13.5 (SD9), global WH0/DAS-S 36.8 (SD19.4). Greater disability was found in the areas of occupation (37.5, SD22) and social context (36, SD21.1). Multiple regression: criteria variable global-disability level at month 8; model. R^2= 0.61; variables included in the model: BPRS depressed symptoms-cluster-score-at month 8 (B .8685), global baseline WHO/DAS-S score (B .3276), gender (female B -3.7814), schizophrenia subtype (paranoid B -4.0588), month 8 CGI score (B 7.0251), and BPRS positive and negative symptoms clusters score at month 8 (B .8426 and B 1.4561).

Conclusions: Disability is narrowly related to gender, schizophrenia subtype, baseline level of disability, and psychopathological and CGI status.

NR706 Thursday, May 20, 12 noon-2:00 p.m. Large Open-Label Study of Venlafaxine Efficacy and Safety in Changing from Prior Antidepressants

Michel De Clercq, Psychiatric Emergency, Saint Luc Hospital, AV Hipprocrate, Brussels 1200, Belgium; Paul Lacante, M.D., Annick Mignon, Ph.D.

Summary:

Objective: To assess the efficacy and safety of venlafaxine when patients are switched from another antidepressant

Method: An open-label study of venlafaxine was conducted in patients with depression according to GCP. Admission criteria were limited to the labeling and allowed patients switching from prior antidepressants. No wash-out was required except for MAOIs. Venlafaxine was started at 75 mg/day. The dose could be increased to a maximum 375 mg/day.

Patients: Of a total of 1,010 patients enrolled, 680 were switchers. Patients switched for lack of efficacy in 86.3% of the cases and only 7.9% due to intolerance.

Interventions: Efficacy was measured with HAM-D, MADRS, and CGI at baseline and days 7, 14, 28, and 42 of treatment. Blood pressure, pulse, and side effects were recorded for safety

Main outcome: Although prior antidepressants had failed, venlafaxine treatment resulted in a 61% response rate. In case of prior SSRI failure, the response rate was 69%. The additional effect of venlafaxine in SSRI failures could be explained by the dual action on serotonin and norepinephrine reuptake. No differences were observed in reported adverse events or vital signs.

Conclusion: In patients switched from their previous antidepressant, venlafaxine provided good efficacy and tolerability.

This study was funded by Wyeth Lederle Belgium.

NR707 Thursday, May 20, 12 noon-2:00 p.m. Assessment of Symptoms Affecting Quality of Life and Patient Satisfaction with Antipsychotic Drugs: New Insights for a Trial of Risperidone/Olanzapine

Ramy A. Mahmoud, M.D., Janssen, 1125 Trenton-Harbourton Road, Titusville NJ 08560; Luella M. Engelhart, M.S., C. Janagap, M.S., G. Awad, M.D.

Summary:

Objectives: It appears that the atypical antipsychotics have somewhat different side-effect profiles and may be further differentiated in certain symptom domains (e.g., anxiety/depression) as well as quality of life (QoL), weight gain, and patient satisfaction with therapy. The objectives of this study are to provide new insights into the associations among these specific patient outcomes and to assess how risperidone and olanzapine compare in the strength and direction of the associations.

Methods: We report exploratory analyses from a randomized, double-blind, comparative trial of risperidone and olanzapine. Associations between psychotic symptom control (PANSS) and drug effects (ESRS), and quality of life (modified SIP), patient satisfaction (DAI), and weight gain are identified by significant Pearson correlation coefficients. Primary trial findings have been reported previously.

Results/Conclusions: Over eight weeks, changes in specific psychiatric symptoms were highly correlated (all $p<0.01$) with changes in patients QoL. Change in psychiatric symptoms did not correlate (all p-values n.s.) with drug side effects. Improvements in patient QoL correlated with positive symptoms, as well as other domains of psychiatric symptoms. Improvements in traditionally measured symptoms were associated with QoL improvements more often among risperidone patients than among olanzapine patients. The only negative association with QoL for either drug was the adverse relationship between weight gain and communication among olanzapine patients.

NR708 Thursday, May 20, 12 noon-2:00 p.m. Antalarmin Suppresses Response to Social Stress

Kamal E. Habib, M.D., CNE, National Institute of Health, NIH Bldg 10, Room 2D-46, Bethesda MD 20892; Kathy Weld, Ph.D., J. Dee Higley, Ph.D., Paulo J. Negro, Jr., M.D., George Chrousos, M.D., Philip W. Gold, M.D.

Summary:

Objective: Hypersecretion of CRH in the brain may contribute to the symptomatology seen in neuropsychiatric disorders such as depression, anxiety-related disorders, and anorexia nervosa. Antalarmin is a recently developed CRH-1 receptor antagonist that is highly lipophilic and can probably cross biological barriers. We wanted to test the hypothesis of antalarmin's ability to reach the brain after oral administration and whether it modifies the monkey's response to the acute social stressor of pairing with another nonfamiliar animal.

Method: Twelve male Rhesus monkeys were used for this study. Subjects received a single oral dose of antalarmin or placebo on an empty stomach. Doses of 0, 10, 20, and 40 mg/kg were utilized at experiment phase one. Ninety minutes later, one monkey was paired with another in two neighbor cages separated by a plexiglas plate, allowing visual access to the other partner. Their behavior was scored by two independent observers unaware of the treatment given. Immediately thereafter, they were anesthetized with IM ketamine to collect blood and CSF samples.

Results: Pairing unfamiliar monkeys precipitates significant aggression and/or fear behaviors accompanied by classic elevation of their plasma stress hormones. Antalarmin significantly, and dose dependently, suppressed these stress-related behaviors (P values of 0.0026 at 10 mg/kg, 0.0016 at 20 mg/kg, and 0.0009 at 40 mg/kg oral dose). Only subtle reductions of the ACTH and cortisol were detected, indicating the predominance of antalarmin actions on the stress circuitry in the brain. No sedation, behavioral abnormality, or other untoward effects were reported after these single oral doses of antalarmin.

Conclusion: We report here the significant efficacy of antalarmin in preventing social-stress-induced responses, namely aggression and fear, in nonhuman primates. Antalarmin seems to have the advantage over classic anxiolytics of being nonsedative and devoid of acute untoward effects. The compound is absorbable and is detected in significant concentrations in the plasma and CSF of monkeys after a single oral dose. This is the first report to our knowledge to acknowledge such promising therapeutic effects of antalarmin in nonhuman primates.

NR709 Thursday, May 20, 12 noon-2:00 p.m.
Sertraline and Quality of Life Across Mood and Anxiety Disorders

Jean Endicott, Ph.D., Department of Psychiatry, NY State Psychiatric Institute, 1051 Riverside Dr, Unit 123, New York NY 10032; Mark H. Rapaport, M.D., Richard L. O'Sullivan, M.D., Cathryn M. Clary, M.D., Roger M. Lane, M.D.

Summary:

Objective: Symptom rating scales, which have been used historically in the assessment of psychiatric disorders in clinical trials, are a necessary, but not sufficient, criterion for measuring treatment outcomes. Other domains of functioning (e.g. sense of well-being & life satisfaction), broadly conceptualized as quality of life (QOL), are increasingly recognized as clinically important. Despite this, fewer than 5% of randomized controlled treatment trials recently surveyed reported on QOL. The current analysis was undertaken to assess QOL findings from a range of sertraline treatment studies.

Method: The Quality of Life Enjoyment & Satisfaction Questionnaire (Q-LES-Q) is a validated and sensitive measure for assessment of QOL in psychiatric disorders. We reviewed findings on the Q-LES-Q from sertraline-controlled treatment studies across a spectrum of mood and anxiety disorders, including major depression, elderly depression, premenstrual dysphoric disorder, and panic disorder.

Results: Analysis of Q-LES-Q findings demonstrated significant improvements in QOL with sertraline treatment across disorders, in addition to symptomatic improvement. Results of Q-LES-Q in responders on symptomatic measures to sertraline, placebo, and comparator drugs will also be discussed. For example, responders to sertraline in an elderly depression trial (overall N = 102, 58.8% response) had significantly greater ($p<0.05$) changes in endpoint and completer Q-LES-Q compared with nortriptyline responders (N = 103; 49.5% response).

Conclusion: Sertraline improved quality of life across a wide range of patient types and disorders. Assessment of QOL with Q-LES-Q may increase sensitivity to discriminate differences among treatment responders to different psychopharmacologic interventions.

Research funded by Pfizer, Inc.

NR710 Thursday, May 20, 12 noon-2:00 p.m.
Biologic Measures of a Placebo Response?

Elizabeth L. McGarvey, Ed.D., Department of Psychiatry, University of Virginia, 2955 Ivy Road, Suite 210, Charlottesville VA 22903; Anita L.H. Clayton, M.D.

Summary:

Background: Benedetti and Amanzio (1997) found that placebo analgesia can be reversed by the opioid antagonist naloxone, suggesting a biologic basis for placebo response. In this study, we investigate a possible biologic measure of placebo response in a clinical trial to test the effectiveness of a drug to reduce pain in migraine headache.

Study Design: In a study of 11 women with menstrual migraine, plasma serotonin (5-HT) and 5-hydroxyindoleacetic acid (5-HIAA) were measured prior to subcutaneous (sc) administration of 6 mg of the 5-HT1d agonist sumatriptan, or placebo, and at 10, 30, 60, and 120 minutes after injection.

Results: Placebo nonresponders (n=4) demonstrated a decline in 5-HT at 10 minutes, while placebo responders (n=2) exhibited a significant rise in 5-HT at 10 minutes post-injection. Subjects who experienced relief with sumatriptan (n=6) or those who experienced no relief (n=3) showed no significant change in serotonin at 60 minutes. There was no difference among the four groups in measures of 5-HT at 60 minutes. Sumatriptan responders experienced meaningful relief at 43 minutes, while placebo responders achieved meaningful relief at 70 minutes.

Conclusions: Both placebo groups indicated serotonin response, while the treatment group showed no change in serotonin level over time.

NR711 Thursday, May 20, 12 noon-2:00 p.m.
Compliance with Continuation Treatment of MDD in the Context of Combined Pharmacologic and Cognitive Therapy

Joel Pava, Ph.D., Department of Psychiatry, Mass General Hospital, 15 Parkman Street WAC 812, Boston MA 02114; Amy Farabaugh, M.A., Shamsah B. Sonawalla, M.D., Meredith A. Rankin, B.A., Jonathan E. Alpert, M.D., John D. Matthews, M.D., Jacqueline Buchin, Ph.D., Maurizio Fava, M.D.

Summary:

Objectives: Little has been published in the depression literature about compliance with psychotherapy or with combined treatment.

The purpose of this study was to compare compliance with continuation treatment between subjects receiving pharmacotherapy alone or combined with cognitive therapy and to determine predictors of compliance.

Methods: 129 outpatients remitted from a major depressive episode after treatment with fluoxetine 20 mg/day were randomized to six months of continuation treatment [fluoxetine 40 mg/day with (n=65) or without (n=64) cognitive therapy].

Compliance was measured by dropout rate, pill counts, percentage cognitive therapy visits attended, and percentage study visits attended. Residual symptoms were measured by Kellner's Symptom Questionnaire. SCID-11 Personality Disorders were assessed at the beginning of continuation treatment.

Results: There was no difference in any measures of compliance between the pharmacotherapy group and combined pharmacotherapy and psychotherapy group. Subjects who were younger, had more residual depression and borderline personality disorder (BPD) were more likely to drop out. Subjects who received cognitive therapy, had more residual anger, and those who met criteria for BPD were less compliant with medication. Subjects with BPD were also less compliant with cognitive therapy. Subjects who were younger had more residual depression, anxiety, and anger and those who met criteria for BPD were less compliant with study visits.

Conclusions: Cognitive therapy did not enhance compliance with continuation treatment and appeared to decrease compliance with medication. Subjects with more residual symptoms and BPD were less compliant.

NR712 Thursday, May 20, 12 noon-2:00 p.m. Fluvoxamine Controls Aggressivity in Mental Retardation

Giampaolo La Malfa, M.D., N&P Sciences, O.U. of Psychiatry, Viale Morgagni 85, Florence 50134, Italy; Marco Bertelli, Michele Conte, Pierluigi Cabras, M.D.

Summary:

In mental retardation (MR), aggressive behavior is a serious management problem. Changes in CNS serotonin levels are considered crucial in the pathophysiology of aggressivity, hence several SSRIs have been used. The aim of the present study was to evaluate the efficacy of fluvoxamine in controlling aggressive behavior in MR.

Sixty aggressive inpatients with DSM-IV diagnoses of MR (40 mild, 20 moderate) have been treated for three weeks with fluvoxamine (mean dose: 250 mg/day) after a run-in period of three weeks: one week without treatment (T1), two weeks of placebo (T3); afterwards fluvoxamine was tapered. Aggressivity was assessed with the Wing's Handicaps Behavior and Skill Schedule (HBSS) at times T1, T3, and T7 (end of the study). Side effects were assessed with DOTES, at times T3 and T7.

The difference between T1s and T3s HBSS scores was not statistically significant nor was the one between T3s and T7s DOTES scores. On the contrary, the difference between T3s and T7s HBSS scores ($p<0.001$) was statistically significant. Our findings support fluvoxamine as a well-tolerated treatment, more efficacious than placebo in controlling aggressivity in mentally retarded patients.

NR713 Thursday, May 20, 12 noon-2:00 p.m. SSRIs and Sexual Behavior in Male Rats: Differential Effects of Paroxetine and Fluvoxamine

Marcel D. Waldinger, M.D., Department of Psychiatry, Leyenburg Hospital, Leyweg 275, 2545 Ch The Hague 2545CM, The Netherlands; Ruud van Oorschmot, Jan Veening, Ph.D., Bereno Olivier, Ph.D.

Summary:

Selective serotonin reuptake inhibitors (SSRIs) have, despite their similar mechanism of action, differential effects on ejaculation latency in nondepressed men with rapid ejaculation (Waldinger et al., 1998). Paroxetine inhibited ejaculation, whereas fluvoxamine did not, at equivalent doses used to treat depression.

In the present study, we treated sexually experienced male rats (at least two ejaculations per 30 min. test) for 14 days with either vehicle, paroxetine (10 mg/kg, p.o.) or fluvoxamine (30 mg/kg, p.o.) once daily. We measured sexual behavior on day 1 (60 min after first treatment), day 7, and day 14. Acutely (day 1) neither paroxetine nor fluvoxamine had any influence on sexual behavior. On day 7, paroxetine, but not fluvoxamine, had a statistically significant inhibitory effect on sexual behavior (number of ejaculations). On day 14, fluvoxamine and vehicle had no effect, whereas the inhibitory effect of paroxetine was even enhanced. These data from male rats are similar to those from normal males with rapid ejaculation and point to differential effects of different SSRIs on mechanisms in the brain or spinal cord influencing sexual behavior.

NR714 Thursday, May 20, 12 noon-2:00 p.m. Depression and Chronic Benzodiazepine Use

Jaap E. Couvee, M.S.C., Medical, SB Farma. BV, Jaagpad 1, 2280 GC Rijswijk ZH, Netherlands; Frans G. Zitman, Ph.D.

Summary:

Objective: To evaluate short-term and long-term efficacy of a treatment intervention program in chronic benzodiazepine users (CBU) with major depressive syndrome (MDS).

Method: The program consisted of three phases: 1) Transfer to long-halflife benzodiazepine (diazepam, four weeks), 2) A 12-week treatment of MDS with paroxetine versus placebo, 3) If response (HAM-D < 8) after six weeks, start tapering off diazepam over four weeks. Follow-up study, after two years, consisted of retrospective evaluation of psychoactive treatment in medical records.

Results: From August 1994 to September 1996, 230 patients entered phase I; 74% women, mean age 56(13), mean diazepam equivalents 9 mg daily; on average patients were users for six years (0.3-27), mean HAM-D score was 17(5). Of the 199 patients randomized, 75% in the paroxetine group versus 61% in placebo group were successfully treated after six weeks (HAM-D<8; $p=0.067$). A total of 122 patients started tapering off diazepam; 65% succeeded, 67% in the paroxetine group and 64% in the placebo group ($p=0.72$). The tapering-off group had significantly lower HAM-D scores while treated with paroxetine ($p=0.009$), but this did not result in fewer withdrawal symptoms. 13% of patients remained benzodiazepine free throughout the two-year follow-up period: 26% of patients who successfully completed the program versus 6% of patients who had dropped out at any phase during the program.

Conclusion: We found chronic low-dose benzodiazepine use in patients with MDS difficult to discontinue for longer periods. An intervention program gives the opportunity to re-evaluate treatment and predicts a better long-term outcome in patients who successfully completed it.

NR715 Thursday, May 20, 12 noon-2:00 p.m. SPECT As a Tool to Predict Response to Sertraline in OCD

Yehuda Sasson, M.D., Department of Psychiatry, Chaim Sheba Medical Center, Tel Hashomer, Ramat-Gan 52621, Israël; Talma

Hendler, M.D., Elinor Goshen, M.D., Zita Zwas, M.D., Michal Lustig, M.D., Joseph Zohar, M.D.

Summary:

Functional brain imaging provides us with the possibility of correlating brain activity with response to treatment. In this study 31 patients with obsessive-compulsive disorder (OCD) underwent four brain imaging trials with single photon emission computerized tomography (SPECT) before and following six months of treatment with sertraline. The first pair of brain imaging trials were attained at relaxed (R) condition while patients underwent an individually tailored behavioral challenge (BC) condition. The changes in blood flow between the BC and R conditions before and at the end of treatment were compared for patients who responded to treatment (n=16) and those who did not (n=15). Response was defined as a decrease of 25% or more on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS).

A significant difference in brain activity in the caudate, thalamus, and temporal regions emerged between the responders and nonresponders. Further analysis suggested that only responders demonstrated changes in the infero-frontal regions. Responders and nonresponders also differed in brain activity before treatment in the left caudate and left thalamus regions. It is therefore suggested that functional brain imaging during symptom provocation may be used to investigate the dynamic changes of responders versus non-responders to pharmacological treatment and also as a possible tool for predicting treatment response.

NR716 Thursday, May 20, 12 noon-2:00 p.m. Olanzapine Versus Haloperidol D2 Occupancy: A Single Photon Emission Tomography Study

Eduard Parellada, M.D., Department of Psychiatry, Hospital Clinic, Villarroel 170, Barcelona 08015, Spain; Miquel Bernardo, M.D., Francisco Lomena, M.D., Ana Catafau, M.D., Mireia Font, Ph.D., Juan-Carlos Gomez, M.D., Manel Salamero, Ph.D.

Summary:

Objective: To compare in vivo striatal D2 occupancy induced by olanzapine and haloperidol in schizophrenic patients and to study the relationship of striatal D2 occupancy with clinical efficacy and extrapyramidal side effects (EPS).

Method: 27 patients meeting DSM-IV criteria for schizophrenia or schizophreniform disorder were included in a four-week, prospective, randomized, double-blind, parallel, and comparative clinical trial. Thirteen patients were treated with haloperidol (10 mg/day) and 14 with olanzapine (10 mg/day). Patients were evaluated weekly using Brief Psychiatfic Scale (BPRS), Positive and Negative Syndrome Scale (PANSS), and the Clinical Global Impression Scale (CGI). Rating of EPS were obtained by the Simpson Angus Rating Scale and the Barnes Akathisia Scale. D2 receptor occupancy was assessed by basal ganglia/frontal cortex ratios (BG/FC) using 123I-IBZM single photon emission tomography (SPECT) before and after treatment. A percentage of change between initial and final BG/FC ratios was calculated to study the relationship of IBZM uptake, clinical efficacy, and EPS.

Results: Mean BG/FC ratios were significantly higher ($p=0.004$) in olanzapine-treated patients (1.39±0.08) than in haloperidol-treated patients (1.28±0.09), reflecting that olanzapine induces a lower level of striatal D2 receptor occupancy. No significant differences were found in the clinical efficacy rating scales between the olanzapine- and haloperidol-treated subgroups of patients. Referring EPS, olanzapie-treated patients showed lower scores on the Simpson Angus Scale ($p<0.005$), whereas no differences were found on the Barnes Akathisia Scale. The percentage of change of BG/FC ratios was not correlated with EPS, whereas a weak correlation with BPRS ($r=-0.4$, $p<0.05$) and PANSS-N ($r=-0.4$, $p<0.05$) for the whole sample was found.

Conclusions: The IBZM SPECT assessment of the low striatal D2 receptor occupancy induced by olanzapine, together with its therapeutic efficacy and the lower incidence of EPS, helps confirm the atypical behavior of this new antipsychotic drug. Furthermore, the relationship between the D2 receptor occupancy, the clinical efficacy, and the EPS remains unclear.

This study was supported by Eli Lilly Company.

NR717 Thursday, May 20, 12 noon-2:00 p.m. Topography of Cortical Blood Flow in MAO-Deficient Mice

Daniel Holschneider, M.D., Department of Psychiatry, University of Southern CA, Sch of Pharmacy/1985 Zonal, Los Angeles CA 90033; Oscar U. Scremin, Ph.D., Ly Huynh, Kevin Chen, Ph.D., Edward De Maeyer, Ph.D., Isabella Seif, Ph.D., Jean C. Shih, Ph.D.

Summary:

Phenylethylarnine (PEA), a specific substrate of monoamine oxidase B (MAO-B), has been proposed to be a possible mediator in the regulation of cerebral blood flow (CBF) in so far as it readily crosses the blood-brain barrier and can elicit migraine attacks in susceptible individuals. Using the autoradiographic Iodo-^{14}C-antipyrine method, we examined the effects of PEA on the cerebral cortical blood flow (CBF) in conscious mice lacking the monoamine oxidase B (MAO-B) gene (KO, n=11) and the corresponding wild-type animals (WILD, n=11). Maps of relative CBF distribution (Z-maps) differed between genotypes, with predominance of CBF in midline motor and sensory cortex in KO over WILD mice. Intravenous infusion of phenylethylamine, (PEA 8 μmoles kg^{-1} min^{-1}), an endogenous substrate of MAO-B, decreased CBF (globally in KO mice (range -31% to -41%) and changed Z-maps to a relatively higher CBF in lateral frontal and piriform cortex in both genotypes. Results are discussed in relationship to ongoing work examining CBF in mice deficient in MAO-A.

Supported by a Mentored Clinical Science Development Program Award #5-K I 2-AG-00521 from the NIA (Dr. Holschnelder), the U.S. Dept. of Veterans Affairs (Dr. Scremin), a Merit Award R37 MH39085 (Dr. Shih), a Research Scientist Award K05 MH 00796, and ROI MH 37020 from the NIMH (Dr. Shih) and the Boyd and Elsie Welin Professorship (Dr. Shih).

NR718 Thursday, May 20, 12 noon-2:00 p.m. Striatal F-Deoxyglucose-PET and MRI in Schizotypal Disorder

Lina S. Shihabuddin, M.D., Department of Psychiatry, Mt. Sinai School of Medicine, 130 West Kingsbridge Road, Bronx NY 10468; Monte S. Buchsbaum, M.D., Larry J. Siever, M.D., Erin A. Hazlett, Ph.D., Antonia S. New, M.D., Adam M. Brickman, B.A., Vivian Mitropoulou, M.A.

Summary:

Patients with schizotypal personality disorder (SPD) (n=16), and schizophrenia (n=42), as well as age- and sex-matched nor-

mal volunteers (n=47), were assessed with high-resolution magnetic resonance imaging (MRI). A subsample of SPD patients (n=16), schizophrenia (n=27), and controls (n=32) were also assessed with positron emission tomography (PET) utilizing ^{18}F-deoxyglucose (FDG). During the FDG tracer uptake period, subjects performed a serial verbal learning task. MR images were segmented into gray, white, and cerebrospinal fluid regions, and warped to average normal coordinates. PET images were coregistered to the MR images and similarly warped for analysis. The relative size of the putamen was significantly smaller compared with normal volunteers (0.249±0.05) in the SPD patients (0.238±0.07) and larger in the patients with schizophrenia (0.265±0.06), while the size of the caudate was similar in all three groups (0.129, 0.128, 0.128, respectively). The glucose metabolic rate in the ventral putamen was significantly reduced (group F=3.44; df=2,72; p=0.03) in the SPD patients and increased in the patients with schizophrenia when compared with healthy controls. There was a significant positive correlation between the total number of SPD psychotic-like symptoms and the size of the caudate. There was a negative correlation with glucose metabolic rate in the ventral putamen, the area where metabolism is lowest in schizophrenia, and SPD psychotic-like symptoms (r=-0.47). The smaller putamen volume and glucose metabolism in SPD patients compared with the patients with schizophrenia might reflect a reduced level of striatal activity that underlies the lack of overt psychosis and reduced dopaminergic system responsiveness in the SPD patients.

NR719 Thursday, May 20, 12 noon-2:00 p.m.
Age-Related Decline in Serotonin Receptors in Depressed Patients and Healthy Controls

Lakshmi N. Yatham, M.B., Department of Psychiatry, University of British Columbia, 2255 Wesbrook Mall, Vancouver BC V6T 2A1, Canada; Peter F. Liddle, M.D., I-Shin Shiah, M.D., Gayle D. Scarrow, B.A., Raymond W. Lam, M.D., Athanasios P. Zis, M.D., Michael J. Adam, Ph.D., Thomas J. Ruth, Ph.D.

Summary:

Objective: Post-mortem and positron emission tomography (PET) studies have reported age-related decline in 5-HT_2 receptors in normal healthy controls. One postmortem study reported a decline in 5-HT_2 receptors with age in some but not all brain regions in depressed patients. The purpose of this study was to measure age-related changes in $5HT_2$ receptor density in depressed patients and healthy controls with PET using ^{18}Fsetoperone as a tracer.

Methods: Nineteen depressed patients and 17 healthy controls underwent setoperone scans. All patients were drug free for at least two weeks prior to scanning and none had a history of substance abuse within the previous six months. Region by cerebellum ratios were used to compute binding images and the correlation between $5HT_2$, receptor binding, and the age was computed using SPM.

Results: We found that there was a highly significant correlation between 5-HT_2 receptor binding in all brain regions and age in both depressed patients and healthy controls. The magnitude of decline in $5HT_2$ binding with age was similar in both groups.

Conclusions: The results of this study suggest that 5-HT_2 receptor density in depressed patients declines with age in similar magnitude as in healthy controls.

NR720 Thursday, May 20, 12 noon-2:00 p.m.
MRI Linear Measures of Cerebellum in Patients with Schizophrenia

Professor Giuseppe Bersani, Lasapienza University, 3rd Psychiatric Clinic, Via Del Corallo N25, Rome 00186, Italy; Angela Iannitelli, M.D., Francesca Lupi, M.D., Claudio Di Biasi, M.D., Guido Trasimeni, M.D., Prof Paolo Pancher

Summary:

The advances of knowledges on a role in cognitive functions suggested the opportunity to study by MRI a potential cerebellum involvement in mental disorders. Aim of this research was to investigate the linear measures of cerebellum in schizophrentic patients. We studied 18 informed male schizophrenic inpatients (mean age=27.94±8.33; mean age of onset=18.94±4.57) and 18 male matched healthy controls (mean age=28.58±8.84). The scans were performed with MRI unit operating at 1.5 Tesla. We analyzed 4 mm-slice T1-weighted midsagittal sections and we measured the Ventricular Brain Ratio (VBR), the Superior Cerebellar Brain Ratio (SCBR) (lobules I-V), the Posterior Cerebeffar Brain Ratio (PCBR) (lobules VI-VII) ,and the Inferior Cerebellar Brain Ratio (ICBR) (lobules VIII-X). Psychopathology was assessed by SANS, SAPS, and PANSS. The Student t test, the Spearman's test, and ANOVA were used. We found in schizophrenic patients a lower SCBR (p=.012) and PCBR (p=.013) than in controls. There is a positive linear correlation between VBR and SAPS items scores, particularly social and sexual behavior (p=.007), repetitive or stereotyped behavior (p=.002), and incoherence of speech (p=029); between SCBR and SAPS in the item global odd behavior (p=.003), clothing and appearance (p=.02), and aggressive and agitated behavior (p=.0001); between PCBR and SAPS in the items global odd behavior (p=.015) and aggressive and agitated behavior (p=.001). The data are suggestive of an involvement of cerebellar alteration in schizophrenia, with a possible closer relationship with positive symptoms.

NR721 Thursday, May 20, 12 noon-2:00 p.m.
MRI in an Animal Model of Depression

Craig F. Ferris, Ph.D., Department of Psychiatry, University of Mass Med School, 55 Lake Avenue North, Worcester MA 01655; Jean A. King, Ph.D., Emmeline Edwards, Ph.D., David P. Olson, M.D.

Summary:

A congenital strain of rats bred for learned helpless (LH) behavior was used to image brain activity in response to footshock stress. The LH rat is characterized by a consistent inability to escape footshock stress in an uncontrollable, unpredictable paradigm. Both functional magnetic resonance imaging (fMRI) and 2-deoxyglucose (2DG) data were collected from LH animals and controls. Animals were placed in a novel device for performing fMRI in awake animals. Baseline datasets were acquired, then 2 DG was injected two minute prior to the collection of the stimulation datasets. Axial T2*-weighted BOLD images of selected slices were acquired using a 2D gradient echo imaging sequence. Changes in signal intensity in the somatosensory cortex of LH rats were assessed in the datasets. These experiments show a stress-induced decrease in activity in the frontal cortex utilizing both fMRI and 2DG techniques. The studies are in agreement with human PET and MRI studies of depressed patients.

NR722 Thursday, May 20, 12 noon-2:00 p.m.
SPECT of Dopaminergic System in Bipolar Disorder

Arnit Anand, M.D., Department of Psychiatry, West Haven VAMC, 950 Campbell Avenue, West Haven CT 06516; Nicolaas P.L.G. Verhoeff, M.D., Dennis S. Charney, M.D., John P. Seibyl, M.D., Robert B. Innis, M.D.

Summary:

Objective: To assess whether dopamine abnormalities in bipolar disorder (BD) are presynaptic or postsynaptic.

Method: Single Photon Emission Computed Tomography was done to study presynaptic dopamine release, dopamine transporters (DAT) and postsynaptic dopamine D_2 receptors (D_2R), in vivo, in euthymic BD subjects and healthy controls. Study of euthymic BD subjects is more likely to uncover the central biochemical abnormality in BD as it is not affected by state-related confounds. We are studying dopamine release by measuring decrease in binding of the D_2R specific tracer [^{123}I]IBZM before and after an amphetamine challenge. Behavioral response to the challenge is measured using BPRS, mania, and depression scales. BD subjects are monitored as inpatients for 24-48 hours after the amphetamine injection. Primary outcome measure is the ratio of specific (striatal) to nonspecific (occipital) binding (V_3"). Dopamine release is measured by subtracting the V_3" value of the second scan from that of the first scan. In the same group of subjects, we are measuring DAT using the tracer [^{123}I] β-CIT.

Results: Preliminary results indicate a greater striatal dopamine release in BD subjects compared with controls, whereas DAT and D_2R binding is similar to controls.

Conclusions: Increased striatal dopamine release may be a trait marker for BD.

Supported by Stanley Foundation.

NR723 Thursday, May 20, 12 noon-2:00 p.m.
Cerebellum and Brainstem in Autism Spectrum

Soo-Jung Lee, M.D., Yale University Child Ctr, 230 South Frontage Road, New Haven CT 06520; Robert T. Schultz, Ph.D., Lawrence Win, B.A., James Rambo, M.S., Lawrence Staib, Ph.D.

Summary:

Objectives: Interest in the possible role of the cerebellum and brain stem in the pathogenesis of autism stems from postmortem findings and from theories focusing on dysregulation of arousal and attention. Although initial MRI studies suggested hypoplasia of select regions of the cerebellar vermis and brain stem, most replication studies have failed.

Method: Given the changes with the publication of DSM-IV, and the possible confounding role of diagnosis in past studies, we measured hindbrain and midbrain regions from high resolution MR images with isotropic voxels in high functioning adolescent and adult males matched on age (group means ranged from 15 to 22) and Full Scale IQ (group means: 95-105): Asperger Syndrome (n=21), autistic disorder (n=15), pervasive developmental disorder NOS (n=12), and normal controls (n=39).

Results: Comparisons of the volume of the cerebellum, midbrain, pons and medulla, and areas of the cerebellar vermian subdivisions (lobules I-V, VI-VII, and VIII-X) failed to reveal any significant group differences and any significant correlations with subdomain scores from the Autism Diagnostic I Interview-Revised.

Conclusion: These findings are significant because this is the first study to consider the role of diagnosis in the debate over the role of cerebellar and brainstern morphology in the pathobiology of autism and related conditions.

NR724 Thursday, May 20, 12 noon-2:00 p.m.
Thalamus and Basal Ganglia Glucose Metabolic Rate in Autism Spectrum Illnesses

M. Mehmet Hamedar, M.D., Department of Psychiatry, Mount Sinai Hospital, I Gustave Levy Place/Box 1505, New York NY 10029; Monte S. Buchsbaum, M.D., Tse Chung Wei, Ph.D., Eric Hollander, M.D.

Summary:

Neurons in the basal ganglia innervate areas of cerebral cortex involved in higher cognitive functions, and this connection occurs via the thalamus. Postmortem studies of patients with autism reported involvement of the limbic structures and cerebellum, but the striatum, thalamus, and cerebral cortex were found unaffected. Previously, in subsample of the patients and controls who are included here, we reported no differences in the relative glucose metabolic rate (rGMR) of the amygdala and hippocampus, but lower glucose metabolic rate in the autism spectrum patients in the right anterior cingulate cortex assessed with positron emission tomography. In the current study, we examined the metabolic changes in the thalamus, caudate, and putamen in 17 high-functioning patients with autism (n=10) and Asperger's (n=7) disorder (15 men, two women, mean age 27.8, SD=11.3) and 17 sex- and age-matched control subjects (mean age 28.9, SD=9.4) who had MRI and PET scans. Subjects performed a serial verbal learning test during the 35-minute ^{18}F-florodeoxyglucose uptake period. The thalamus, caudate, and putamen were outlined on axial MRI slices and, after PET/MRI coregistration, ROI coordinates were applied to the PET scan for each individual. Metabolic three-dimensional maps of the structures were then constructed and each individual's ROI was standardized to the averaged contour of the normal group. Between-group differences in metabolism in the basal ganglia and thalamus were assessed by statistical t-test maps (with a resampling technique to control for multiple comparisons). Autism spectrum patients had lower rGMR in the left and right caudate ($t=2.04$, $p<0.04$, $p<0.03$, respectively), lower rGMR in the left and right putamen ($p<0.01$, $p<0.01$), and lower rGMR in the left and right thalamus ($p<0.01$, $p<0.01$). Autism patients as a subgroup differed from Asperger's patients and did not have any metabolic differences in the caudate compared with control subjects. The correlations with task performance and clinical implications of these findings will be discussed.

Funded by Siever Foundation-for Autism Research.

NR725 Thursday, May 20, 12 noon-2:00 p.m.
Zaleplon: No Next-Day Residual Sedation or Psychomotor Impairment

Martin Scharf, Ph.D., Sleep Disorders Center, 1275 East Kemper Road, Cincinnati OH 45246

Summary:

Objective: Hypnotic medications often negatively affect next-day function. However, zaleplon's short half-life should reduce the likelihood of undesirable residual effects. Daytime residual sedative effects and psychornotor skills were assessed in two randomized, placebo-controlled trials evaluating zaleplon 10 mg vs. flurazepam 30 mg.

Method: Study 1 examined 93 healthy adults (18-45 yr) dosed at bedtime. Study 2 evaluated 22 patients (18-60 yr) with sleep maintenance insomnia dosed after awakening (3.5 h after bedtime). Assessments for both studies included the multiple sleep

latency test (MSLT), digit symbol substitution test (DSST), and symbol copying test (SCT).

Results: In Study 1, MSLT times and DSST scores for zaleplon subjects did not differ significantly from placebo and were significantly better than in the flurazepam group. Flurazepam produced significant impairment in both tests compared with placebo or zaleplon. No significant SCT differences occurred. In Study 2, MSLT times and DSST and SCT scores (5 and 6.5 h after dose) were no different for zaleplon vs. placebo, whereas flurazepam subjects showed significant impairment vs. either zaleplon or placebo in all three tests.

Conclusions: Zaleplon 10 mg, unlike flurazepam 30 mg, does not differ significantly from placebo in next-day residual sedation or psychomotor function impairment.

NR726 Thursday, May 20, 12 noon-2:00 p.m. Education Improves Outcomes in MDD

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Summary:

This randomized controlled trial evaluated the impact of Rhythms a compliance enhancement program (Pfizer Inc) for patients with major depressive disorder (MDD), on remission rates in 269 adults diagnosed with MDD. All subjects were treated with sertraline and managed by their primary care physicians to receive standard care. In addition to sertraline treatment, subjects allocated to the Rhythms arm received regularly by mail educational material about MDD.

Structured interviews were conducted by independent raters biweekly for the first nine weeks (acute phase) and then monthly for the remaining 20 weeks (maintenance phase). The mean age of subjects was 37, the proportion of females was 75%, and the mean baseline Hamilton Rating Scale for Depression Score (HRSD) was 23. At baseline, subjects in the two study arms did not differ in age, sex, and baseline HRSD scores. At trial conclusion, small but not statistically significant differences in favor of Rhythms were found in HRSD and remission rates. However, the Rhythm, group expressed statistically significantly higher satisfaction (>90%) than the non-remitters (80%-90%) for all information given and the usefulness of the drugs.

Conclusion: An educational program for patients has an important impact on patient satisfaction and may positively influence outcomes.

NR727 Thursday, May 20, 12 noon-2:00 p.m. A Screening Instrument for Use in Psychiatric Outpatient Practice

Mark Zimmerman, M.D., Department of Psychiatry, Rhode Island Hospital, 235 Plain Street, Suite 501, Providence RI 02905; Jill I. Mattia, Ph.D., Wilson McDermut, Ph.D.

Summary:

Objective: The purpose of this study was to examine the reliability and validity of a new multidimensional screening instrument for 15 DSM-IV Axis I disorders.

Methods: The Psychiatric Diagnostic Screening Questionnaire is a self-administered questionnaire that assesses the most common DSM-IV disorders presenting in mental health outpatient settings. A series of 400 psychiatric outpatients completed the PDSQ immediately before their intake evaluation and were interviewed with the Structured Clinical Interview for DSM-IV (SCID). Two hundred seventy patients completed a booklet of questionnaires that included established measures of the same symptom domains of the PDSQ, and 174 patients completed the PDSQ a second time within a week of the initial administration.

Results: The PDSQ subscales achieved good-to-excellent levels of internal consistency (13 of the 15 subscales had an alpha coefficient above .80; mean alpha coefficient = .85). The individual PDSQ items correlated more highly with their own subscale than other subscales (mean item-parent subscale correlation = .66; mean item-other subscale correlation = .30). The mean of the test-retest reliability coefficients was .82. The PDSQ subscales were much more highly correlated with established measures of the same symptom domain than with measures of other types of psychopathology. Subscales scores were significantly associated with blind SCID diagnoses. Data on scale sensitivity, specificity, and positive and negative predictive value will be presented at the meeting.

Conclusions: The PDSQ is a reliable and valid measure of multiple DSM-IV disorders that is brief enough so that it can be incorporated into routine clinical outpatient practice without disruption, yet lengthy enough to be a psychometrically sound instrument.

NR728 Thursday, May 20, 12 noon-2:00 p.m. The Reliability of 'Praecox Feeling' in the Diagnosis of Schizophrenia

Gabor S. Ungvari, M.D., Department of Psychiatry, Chinese University, Prince of Wales Hospital, Hong Kong, China; Helen F.K. Chiu, M.B., Henry C.M. Leung, M.D., Hong Yu, M.D., Eddie So, M.D., Francis Lum, M.D.

Summary:

Objectives: Rumke (1941) coined the term "praecox-feeling" to denote a specific unease experienced by the clinician, reflecting the impossibility of empathy and lack of exchange of affect, which has been reported to occur when examining schizophrenic patients. Praecox-feeling is still used by psychiatrists in clinical practice (Sagi & Schwartz, 1988). We examined the reliability of the praecox-feeling against the background of modern diagnostic criteria and assessment methods.

Methods: 102 consecutively admitted patients (37 with schizophrenia) were interviewed within two days following their admission. This initial interview was observed by five psychiatrists who had never seen the patients before. The interview lasted two minutes and consisted of standard, nonspecific questions. The observing clinicians independently rated the absence or presence of praecox-feeling for each patient. A sixth psychiatrist then examined the patients using the SCID and all available information to reach a DSM-IV diagnosis.

Result: Measured against research diagnosis, praecox-feeling had unsatisfactory sensitivity (61%-77%) and specificity (33%-61%). Length of clinical experience did not correlate with the accuracy of praecox-feeling.

Conclusions: Praecox-feeling is an unreliable diagnostic compass and should be relegated to the history books of psychiatry.

NR729 Thursday, May 20, 12 noon-2:00 p.m. Suicidal Behavior in Patients with Adjustment Disorders

Lyudrnyla Kryzhanivska, M.D., Department of Psychiatry, University of Virginia, 2955 Ivy Road, Suite 210, Charlottesville VA 22903; Elizabeth L. McGarvey, Ed.D., Gerald L. Brown, M.D.

Summary:

Objective: The aim of this study was to characterize the suicidal behavior and psychiatric symptomatology in male patients with adjustment disorders assessed in an emergency room of a university hospital.

Method: Medical records of 55 male patients, ages 16 to 54, were reviewed by a psychiatrist. Special coding scales were developed to capture documented information.

Results: Of the sample, 22% were African American, 75% were European American and 3% were other. Mean age was 30 (SD=9). There were no significant differences in admitting diagnosis by ethnicity. 82% had a history of alcohol abuse. Overall, 42% of males admitted for adjustment disorders had a documented suicide attempt. Serious aggressive behavior was found in up to 25% of the sample, with 18% showing documented homicidal threats and 2% showing homicidal behaviors. In addition, 7% had a history of assault; 6% had a documented history of fighting with the father; 4% had set fires, and 4% had destroyed property.

Conclusions: Males admitted from a medical emergency room with adjustment disorders show high rates of suicidality and aggression. Adjustment disorders may involve very serious psychopathology.

NR730 Thursday, May 20, 12 noon-2:00 p.m.
Predictors of the Severity of Panic Disorder

Milan Latas, M.D., Institute of Psychiatry KCS, Pasterova 2, Belgrade 11000, Yugoslavia; Vladan Starcevic, M.D., Goran Trajkovic, M.D., Goran Bogojevic, M.D.

Summary:

Objective: To examine predictors of the severity of illness in patients with panic disorder with agoraphobia (PDA).

Method: Sixty consecutive outpatients with a principal diagnosis of PDA, as determined by means of the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), participated in this study. Regression analysis was used to identify predictors of the severity of PDA. A dependent variable was the severity of PDA, as assessed on the basis of the Panic Disorder Severity Scale. Independent variables were demographic data (age, sex), duration of PDA, diagnosis of any personality disorder (as determined by the Structured Clinical interview for DSM-IX Axis II Personality Disorders, SCID-II), and the SCID-I comorbid diagnoses of major depressive disorder (MDD) and generalized anxiety disorder (GAD).

Results: Regression analysis of predictors was statistically significant (F=5,080; p=0.000). Statistically significant predictors of the severity of PDA were male sex (B-3.75: p=0.003; T=3.15), comorbid GAD (B=2.47; p=0.019; T=2.43), and comorbid MDD (B=2.20; p=0.045; T=2.05).

Conclusions: These findings are consistent with previous results of research. Men appeared prone to exhibit a more severe PDA at the time of assessment because they might have been more reluctant to seek treatment at the earlier, less severe stage of illness. The association of the severity of PDA with comorbid GAD and MDD suggest that the higher the comorbidity rate of PDA with these mental disorders, the greater the likelihood of a more severe PDA.

NR731 Thursday, May 20, 12 noon-2:00 p.m.
Effectiveness of Gabapentin in a Broad Range of Psychiatric Diagnosis

Alexandra Berezovskaya, M.D., Brockton VAMC, 62 Pleasant St., Brookline, MA 02446; Amani Michael, M.D.

Summary:

Objectives: The goal was to study efficacy and safety of gabapentin in a population with a wide range of mood disorders.

Methods: Computerized medical records of the inpatients and outpatients who were started on gabapentin at the Brockton VA were reviewed. Response to gabapentin was rated using CGI scales.

Results: Among 46 patients there were 23 with bipolar disorder, eight with schizoaffective disorder, five with substance induced mood disorder, five with PTSD, and two with chronic depression. The doses of gabapentin ranged from 200mg to 2700mg, (mean dose = 1313mg). 26% of patients had demonstrated significant and 48% minimal improvement in the mood symptoms, as rated by the CGI-I with no significant differences between diagnostic groups or different mood phases. Among the 31 patients who were treated with gabapentin as a sole mood stabilizer, seven (23%) showed significant and 15 (48%) minimal improvement. 43% of patients noticed improvement with irritability and impulsivity. Ten patients (22%) reported side effects such as sedation (n=7), blurred vision (n=2), and dizziness (n=2). Seven patients have discontinued the medication, three of them due to the side effects.

Conclusion: Gabapentin appears to be an effective and well-tolerated mood stabilizer with possibly specific effect on irritability and impulsivity.

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