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ATTENTION DEFICIT DISORDERS

ADHD AND BIPOLAR DISORDER SUBTYPE

A familial relationship between attention-deficit hyperactivity disorder (ADHD) and bipolar disorder (BPD) was examined in 140 children with ADHD, 120 non-ADHD controls, and their 822 first-degree relatives by analyses of structured psychiatric interviews at the Pediatric Psychopharmacology Unit, Massachusetts General Hospital, Harvard Medical School, Boston, MA. Of 15 ADHD+BPD children meeting diagnostic criteria for BPD, most had irritable, not euphoric, mood, only one had classic biphasic illness and 9 had mixed manic and depressive presentations. Relatives of both ADHD with, and without, BPD groups had an increased risk of ADHD compared to the non-ADHD controls. The risk of BPD among relatives was increased 5-fold if the proband child with ADHD had BPD. Relatives of ADHD+BPD probands had an increased risk of major depression. Both ADHD and BPD occurred in the same relatives more often than expected by chance. A male preponderance of bipolar relatives of ADHD+BPD probands was 75% to 25% female. A familial distinct subtype of comorbid ADHD with BPD is suggested by the data. (Faraone SV, Biederman J, Mennin D, Wozniak J, Spencer T. Attention-deficit hyperactivity disorder with bipolar disorder: a familial subtype? *J Am Acad Child Adolesc Psychiatry* Oct 1997;36:1378-1387). (Reprints: Dr Biederman, ACC-725, 15 Parkman St, Boston, MA 02114).

COMMENT. The comorbid presentation of ADHD with BPD may represent a subtype nosologically discrete from other ADHD cases, a male predominant syndrome with childhood onset and severe symptomatology, and high familial risks for ADHD, BPD, and major depression.

The hypothesis that BPD may underly the syndrome of ADHD or occur as a comorbid disorder is not new. It was a popular explanation by some psychiatrists for the "hyperactive child" syndrome or the "minimal brain dysfunction" syndrome during the 1960's, not generally subscribed to by neurologists specializing in the field. Werry JC, in his discussion of the above article by the Harvard group of investigators, points out that the data show a

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low association of ADHD and BPD, probably only 5%, and cautions against the risk of an overdiagnosis and treatment of ADHD as BPD, or as a comorbid disorder.

Mania with pervasive developmental disorder is reported in 14 children, representing 21% of a group of PDD subjects, in a study at the Massachusetts General Hospital (Wozniak J, Biederman J, Faraone SV, et al. J Am Acad Child Adolesc Psychiatry November 1997;36:1552-1559). According to the authors, comorbid mania among patients with PDD may be more common than previously thought.

Symptoms of mania can include an abnormal and persistently elevated, expansive, or irritable mood, hyperactivity, distractibility, inappropriate cheerfulness, excessive talking, and silliness, sleeplessness, agitation, and aggressive outbursts. Adults with manic episodes also engage in inappropriate business ventures, unrestrained buying sprees, and irresponsible credit card debt.

Aggression in boys with ADHD was associated with parent aggressive behavior and lower 5-HT₂ central serotonergic function in a study of 41 boys at Queens College, Flushing, NY. (Halperin JM, Newcorn JH, Kopstein I, et al. Serotonin, aggression, and parental psychopathology in children with attention-deficit hyperactivity disorder. J Am Acad Child Adolesc Psychiatry Oct 1997;36:1391-1398). Serotonergic function was assessed by the prolactin response to fenfluramine challenge.

METHYLPHENIDATE FOR ADHD IN PRESCHOOLERS

The effectiveness of methylphenidate (MPH), 0.3 and 0.5 mg/kg 2x daily, in the treatment of 31 children, aged 4 to 6 years, with attention-deficit hyperactivity disorder (ADHD) was investigated by a double-blind, placebo-controlled study at the University of Ottawa, Canada. Comorbid oppositional defiant disorder and conduct disorder were present in 84% and 19%, respectively. While on MPH compared to placebo, significant improvements were obtained on a cognitive measure (number of correct responses on Gordon Vigilance Task), the parent ratings of the child's behavior, and tasks measuring ability to stick with a paper-and-pencil assignment. Parents' ratings were most sensitive. A positive response to MPH on at least one of the measures of attention was obtained in 90% of patients. Improved performance during MPH was also noted in measures of impulsivity-hyperactivity and conduct. No changes were observed in the child's compliance with parental everyday requests. Side effects, stomachaches, headaches, anxiety, and sadness, increased in frequency and severity with the higher dosage of MPH. (Musten LM, Firestone P, Pisterman S, Bennett S, Mercer J. Effects of methylphenidate on preschool children with ADHD: cognitive and behavioral functions. J Am Acad Child Adolesc Psychiatry Oct 1997;36:1407-1415). (Reprints: Dr Philip Firestone, Departments of Psychology and Psychiatry, University of Ottawa, 120 University Private, Ottawa, Ontario, Canada K1N 6N5).

COMMENT. Methylphenidate may improve attention and parent-rated behavior of preschool children with ADHD, and comorbidity with oppositional defiant disorder is not a contraindication to its use in younger children. The positive effects of MPH in preschoolers parallels the benefits noted in older children, and side effects are similar and dose related.

NEUROLOGICAL SOFT SIGNS AND PSYCHIATRIC SYMPTOMS

The association between neurological soft signs, measured by the