

occurred each week during the 3 months prior to interview. The overall prevalence of headaches was 10.3% (10.4% of boys and 10.2% of girls). An increased prevalence with age was similar in boys and girls and did not affect associations with psychiatric disorders. Of those with internalizing disorders, depression and anxiety, 20.5% had headaches, compared to 9.2% in children without psychiatric disorders. Girls were affected more than boys (30.6% v 13.1%). Of externalizing disorders, conduct disorders were associated with a 2-fold increase in prevalence of headache only in boys, whereas ODD and ADHD did not predispose to headaches. Although ODD in girls was not associated with an overall increase in headache prevalence, this comorbidity resulted in an impaired quality of life, with headaches that were more prolonged, affected school attendance, and required greater medical intervention. (Egger HL, Angold A, Costello EJ. Headaches and psychopathology in children and adolescents. J Am Acad Child Adolesc Psychiatry Sept 1998;37:951-958). (Reprints: Dr Egger, Developmental Epidemiology Program, DUMC Box 3454, Durham, NC 27710).

COMMENT. Depression and anxiety disorders are associated with an increased prevalence of headache in girls, and conduct disorders predispose to headaches in boys. Girls with ODD have greater morbidity resulting from headaches, with increased school absences and medical intervention. The authors discuss the common neurotransmitter, serotonin, in the regulation of headaches, depression, anxiety, aggression, and hostility, and the relation to Carroll's theory of central pain mechanisms as a cause of depression.

Classification of Headache. Cluster analysis failed to identify groups of symptoms corresponding to the World Federation of Neurology definition of migraine in 150 children with recurrent headache, attending neurology clinics at Royal Manchester, Booth Hall, and Birmingham Children's Hospitals, UK. Three groups of symptoms that were identified were not stable, not clinically useful, and did not correspond to any of the International Headache Society classifications. The authors propose a continuum theory of headache disorders based on signs and symptoms associated with the headache, course, response to treatment, and prognosis, rather than the severity and character of the headache itself. (Viswanathan V, Bridges SJ, Whitehouse W, Newton RW. Childhood headaches: discrete entities or continuum? Dev Med Child Neuro 1998;40:544-550).

INFECTIOUS DISORDERS

INFLUENZA-ASSOCIATED ACUTE ENCEPHALITIS

Ten patients with acute encephalopathy or encephalitis associated with influenza-like illness, admitted to hospitals in Nagoya, Japan, during 12 months, 1996-97, mainly mid-winter, had cerebrospinal fluid examined by PCR for influenza A and B. Seven patients, aged 2 to 4 years, had generalized convulsions within 2 days of fever onset and evidence of recent influenza infection, type-A/Hong Kong (H3N2) in 6 and type B in 1. PCR for influenza A was positive in the csf of 5 patients. Two died, one had sequelae, and 4 recovered without complications. One child had clinical features similar to Reye's syndrome. (Fujimoto S, Kobayashi M, Uemura O et al. PCR on cerebrospinal fluid to show influenza-associated acute encephalopathy or encephalitis. Lancet Sept 12 1998;352:873-75). (Respond: Dr Shinji Fujimoto, Department of Paediatrics, Nagoya City University Medical School, Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya 467-8601, Japan).

COMMENT. An outbreak of influenza-associated encephalopathy or

encephalitis in the winter of 1996-97 in Nagoya, Japan, was mainly due to type A. Direct viral involvement of the central nervous system was confirmed by positive PCR results in the cerebrospinal fluid. The clinical profiles of this outbreak were different from most previous epidemics.

Viral encephalitis, especially influenza, during pregnancy and early childhood is a potential and possibly overlooked factor in the cause of the ADHD syndrome (Millichap JG. Encephalitis virus and ADHD. IRSM Letter to the editor, Dec 1997;90:709-710).

ATTENTION DEFICIT AND LEARNING DISORDERS

ADHD AND PSYCHOACTIVE SUBSTANCE USE DISORDERS

The association between attention deficit/hyperactivity disorder (ADHD) and psychoactive substance use disorders (PSUD) was studied by familial risk analysis at the Massachusetts General Hospital, Boston, MA. Blind rating of first-degree relatives of children and adolescents referred with ADHD (131 probands, 413 relatives) and healthy controls (106 probands, 323 relatives) showed that the risk for ADHD among relatives of probands with ADHD did not differ by the presence of PSUD in the proband, and ADHD is likely to be causally independent from PSUD. ADHD and drug use disorders may share familial etiological factors. (Milberger S, Faraone SV, Biederman J, Chu MP, Wilens T. Familial risk analysis of the association between attention-deficit/hyperactivity disorder and psychoactive substance use disorders. Arch Pediatr Adolesc Med Oct 1998;152:945-951). (Reprints: Joseph Biederman MD, Pediatric Psychopharmacology Unit, ACC-725, Massachusetts General Hospital, 15 Parkman St, Boston, MA 02114).

COMMENT. Familial risk analyses suggest that ADHD is causally independent from substance use disorders. Patients would need to be followed through the age at risk for PSUD to rule out a common familial risk factor for ADHD and PSUD.

Variations in ADHD treatment patterns were studied in 102 special education students sampled at the University of Florida, Gainesville. Nearly three fourths were treated by a primary care provider, and less than one third of these were seen by a mental health specialist. ADHD children receiving only primary care had fewer comorbid conditions, less impairment, less family burden, and less use of multimodal therapies than those seen by a mental health specialist. (Bussing R, Zima BT, Belin TR. Variations in ADHD treatment among special education students. J Am Acad Child Adolesc Psychiatry Sept 1998;37:968-976). Reports of clinical outcomes and comorbidity of ADHD vary with the specialty and type of care provider.

PERSISTENCE OF DEVELOPMENTAL DYSCALCULIA

The natural history of developmental dyscalculia (DC) in 140 fourth-grade students was studied at the Shaare Zedek Medical Center, Jerusalem, Israel. In phase I of the study, IQ testing; arithmetic, reading, and writing evaluations; and ADHD assessments were conducted over a 3-year period. In phase II, three years later, 123 (88%) were retested and 57 (47%) had persistent DC, with scores in the lowest 5% for their age group (13-14 years). Persistence of DC was correlated with severity of DC and arithmetic problems in siblings of the probands. Socioeconomic status, gender, another learning disability, and educational interventions were not associated with persistence of DC. Attention problems were more severe in children with persistent DC than in those whose scores improved at follow-up.