

highly stressful lives, were more likely to keep appointments and to comply with treatment schedules than those with cultural and socioeconomic advantages. Cognitive functioning (IQ) was positively correlated with adequate drug levels. Seizure frequency and severity were not correlated with treatment adherence. Behavioral comorbidity was associated with poor adherence to medication and attendance. Parental report of medication adherence was minimally correlated with adherence based on drug levels. Adherence measures were statistically independent of each other, emphasizing the need to use multiple predictive factors. (Mitchell WG, Scheier LM, Baker SA. Adherence to treatment in children with epilepsy: who follows "doctor's orders?" Epilepsia Dec 2000;41:1616-1625). (Respond: Dr Wendy Mitchell, Neurology Division, Children's Hospital Los Angeles, 4650 Sunset Blvd, Los Angeles, CA 90027).

COMMENT. Contrary to expectations, the most striking positive measure of adherence to therapy and attendance of patients with epilepsy in this study was an acculturative risk factor among non-English speaking recent immigrants with lower incomes and highly stressful lives. Seizure severity was not associated with adherence outcome. One factor not addressed in this study was the physician's fluency with foreign language or need for clinic interpreters that might detract from patient communication. In my early years at Children's Memorial Hospital, Chicago, in the 1960's, one of my fellows in training, Dr Winston Ortiz, later of Ponce, Puerto Rico, was adept at obtaining compliance with epilepsy treatment from Spanish-speaking parents at our Seizure Clinic. His clinical acumen, fluency with the language, and gentle but commanding persuasion engendered trust and faithful adherence to treatment regimens and appointment schedules. The rapport between physician and patient is perhaps the most important predictive factor of compliance and success of epilepsy management. In recent years we physicians have also become dependent on the support and expertise of nurse practitioners who strengthen the physician-patient relationship and contribute to treatment compliance and effectiveness.

BRAIN MALFORMATIONS

CALLOSAL AGENESIS AND INTERHEMISPHERIC CYSTS

Imaging studies of 25 cases of agenesis of the corpus callosum with interhemispheric cyst were retrospectively reviewed at the University of California, San Francisco, and Harvard Medical School, Boston. A classification based on morphology was developed from the study of CTs of 6 patients and MRIs of 19 patients. Two major types are recognized, each with subtypes: Type 1 cysts formed from extension or diverticulation of the third or lateral ventricles; and Type 2 loculated cysts not communicating with ventricles.

Type 1 cyst subtypes are characterized as follows: 1a) associated with communicating hydrocephalus; 1b) obstructive hydrocephalus caused by diencephalic malformation and blockage of fluid from 3rd ventricle to aqueduct; 1c) associated with hemisphere hypoplasia and microcephaly.

Type 2 cyst subtypes: 2a) multiloculated cysts associated only with callosal agenesis; 2b) associated with deficiency of falx, heterotopia, polymicrogyria, and Aicardi syndrome; 2c) associated with subcortical heterotopia; 2d) interhemispheric arachnoid cysts. The majority of patients were male, except those with 2b cysts. (Berkovich AJ, Simon EM, Walsh CA. Callosal agenesis with cyst. A better understanding and new classification. Neurology January (2 of 2) 2001;56:220-227). (Reprints: Dr A James Berkovich, Department of Neuroradiology, L371, University of California San Francisco, 505 Parnassus Ave, San Francisco, CA 94143).

COMMENT. Callosal agenesis and interhemispheric cyst is a heterogeneous group of malformations, mainly in males, consisting of two major types, one with cysts that are formed by extensions of the ventricles, and another consisting of loculated cysts not communicating with ventricles. Many are complicated by hydrocephalus and macrocephaly. The MRI permits the identification of previously unrecognized malformations associated with agenesis of the corpus callosum.

ATTENTION DEFICIT DISORDERS

ADHD COMORBIDITY, GENDER, AND SYMPTOM PROFILES

The results of the NIMH Collaborative Multisite Multimodal Treatment Study of Children with Attention-Deficit/Hyperactivity Disorder (MTA) have been reexamined from several standpoints. One panel of investigators has examined whether core symptoms (inattention and impulsivity) and symptom profiles differ as a function of comorbidity and gender. A continuous performance task (CPT) and rating scales were used to measure core symptoms in 498 children from the MTA who were divided into 4 groups. CPT inattention, impulsivity, and dyscontrol errors were high in all groups. Children with ADHD + anxiety disorders (internalizing symptoms) were more inattentive than impulsive, whereas those with ADHD + ODD or CD (externalizing symptoms) were more impulsive than inattentive. Girls were generally less impaired and less impulsive than boys, and girls with ADHD + anxiety made fewer CPT impulsivity errors than girls with ADHD only. (Newcorn JH, Halperin JM, Jensen PS et al. Symptom profiles in children with ADHD: effects of comorbidity and gender. J Am Acad Child Adolesc Psychiatry February 2001;40:137-146). (Respond: Dr Newcorn, Department of Psychiatry, Mount Sinai Hospital, Box 1230, One Gustave L Levy Place, New York, NY 10029).

COMMENT. Despite differences in symptomatology, children with ADHD and comorbid symptoms have high levels of objectively measured ADHD core symptoms. Girls are generally less affected and show less impulsivity than boys, especially when ADHD is comorbid with anxiety symptoms. These findings have treatment implications, since medication may be less frequently required in girls with low levels of impulsivity.

Comparison of ADHD comorbid subgroups. The MTA data were analysed using validation criteria to compare ADHD subgroups, with and without comorbid anxiety and ODD/CD. Children with ADHD-only or ADHD + ODD/CD (without anxiety) responded best to medication treatments (with or without behavioral treatments), while those with multiple comorbidity (anxiety and ODD/CD) responded best to medication and behavioral treatments combined. Children with ADHD + anxiety (without ODD/CD) responded equally well to the MTA behavioral and medication treatments. The authors conclude that the clinical comorbid profiles are sufficiently distinct to warrant classification as ADHD subtypes. (Jensen PS, Hinshaw SP, Kraemer HC et al. ADHD comorbidity findings from the MTA study: comparing comorbid subgroups. J Am Acad Child Adolesc Psychiatry Feb 2001;40:147-158).

Treatment success rates. Optimal responses on the MTA/ADHD rating scales are obtained with combined treatments (68%), followed closely by medication alone (56%), then behavioral therapy (34%), and finally, community care (25%). (Swanson JM et al. J Am Acad Adolesc Psychiatry 2001;40:168-79)