

benefit and a highly significant increase in muscle strength in 16 patients treated. The drug was useful when given alone or in combination with anticholinesterase medication (Palace J et al. 3,4-diaminopyridine in the treatment of congenital (hereditary) myasthenia. J Neurol Neurosurg Psychiatry Dec 1991; 54:1069-1072).

MOVEMENT DISORDERS

DYSKINETIC AND DYSTONIC CEREBRAL PALSY

The records of 794 cases of congenital cerebral palsy (CP) seen between 1955 and 1986 in the Cheyne Centre for Children with Cerebral Palsy, Chelsea, London were analyzed. Of 219 cases with dyskinetic or dystonic CP 57 had kernicterus and these were excluded from the analysis. Of the remaining 162 patients birth weight was below the expected mean in two-thirds. The frequency of abnormal births was similar in those born before 37 weeks (32%) and those born at term (30%). Abnormal birth was more common in dyskinetic CP (38%) than in dystonic CP (19%). In kernicterus cases the birth was abnormal in 3.6%. There was a clear positive relationship between abnormal birth and reported asphyxia. A severe outcome was as common in those with an abnormal birth, abnormal neonatal history, or respiratory problems as in those without these complications. The authors concluded that 1) there was no relationship between birth weight or abnormal birth or asphyxia and the ultimate clinical severity of the children and 2) abnormal birth and asphyxia are not direct causes of cerebral damage, but expressions of a preexisting condition resulting in susceptibility to the stress of birth (Foley J. Dyskinetic and dystonic cerebral palsy and birth. Acta Paediatr Jan 1992; 81:57-60). (Correspondence: Dr. John Foley, The Old House, 54 Ashacre Lane, Worthing, W. Sussex BN13 2DE, UK.)

COMMENT. In contrast to the conclusions drawn by Dr. Foley, Hagberg B and Hagberg G in their invited commentary of this paper suggest that in the majority of cases of dyskinetic and dystonic CP negative birth events and birth asphyxia in particular, are the direct cause with several predisposing factors. They allude to the value of MRI studies in the timing of basal ganglia pathology in these cases (see also Ped Neur Briefs Jan 1992; 6:3-4).

HORMONAL INFLUENCES ON TOURETTE SYNDROME

A survey of 47 women with Tourette syndrome reported from the Section of Pediatric Neurology, Children's Hospital of Wisconsin, Milwaukee, WI had an increase in tics beginning at menarche and recurring premenstrually. A comparable number of patients had a decreased tic frequency during the postmenstrual period. The average age of symptom onset was 8 years and the average age of diagnosis was 13.8 years. No significant relationship was found between a change in tic frequency and other non-menstrual cycle-related female hormonal states such as premenstrual syndrome, oral contraceptive use, pregnancy and menopause (Schwabe MJ,

Konkol RJ. Menstrual cycle-related fluctuations of tics in Tourette syndrome. Pediatr Neurol Jan/Feb 1992; 8:43-46). (Correspondence: Dr. Konkol, Department of Neurology, MACC Fund Research Building, Watertown Plank Road, Milwaukee, WI 53226.)

COMMENT. Thermal stress is another factor that might exacerbate Tourette syndrome and cause an increase in the frequency of tics (Lombroso PJ et al. Exacerbation of Gilles de la Tourette's syndrome associated with thermal stress: a family study. Neurology Dec 1991; 41:1984-1987). When challenged with heat or exercise in climate controlled conditions a 17 year old boy showed a marked increase in frequency of tics. The patient reported that his tics became more severe whenever the weather became warmer, when he had a fever, or after vigorous exercise. He would have difficulty standing and often had to lie down because of the severity of head jerks and other tics.

ATTENTION DEFICIT DISORDERS

ATTENTION DEFICIT AND EEG ANALYSIS

Computerized power spectral analysis (PSA), permitting topographic representation and statistical analysis of EEG, of 25 right-handed males, 9-12 years of age with attention deficit hyperactivity disorder was used in studies from the Departments of Psychology, Pediatrics (Neurology) and Computing Center, University of Tennessee and East Tennessee Children's Hospital, Knoxville, TN. When compared with 27 controls matched for age and grade level, children with ADHD had increased theta (4.75 Hz) and decreased beta 1 (12.75-21 Hz). The differences were less when the patients were at rest during visual fixation and greater when tested for reading and drawing skills. The increased theta activity was found in the frontal and central locations and decreased beta in posterior and temporal locations. These differences were enhanced in patients with ADHD during the drawing task, with a difference of more than 20% between groups ($P < .01$) in premotor and prefrontal regions. The study provided 80% predictability for ADHD group membership and 74% for membership in the control group (Mann CA. Quantitative analysis of EEG in boys with attention-deficit-hyperactivity disorder: controlled study with clinical implications. Pediatr Neurol Jan/Feb 1992; 8:30-36). (Correspondence: Dr. Lubar, Department of Psychology, University of Tennessee, Knoxville, TX 37996-0900.)

COMMENT. In a previous study (Flynn JM, Deering WM. Dev Med Child Neurol 1989; 31:215-223) PSA was used successfully to differentiate the Boder subgroups of dyslexic children. An increase of theta in the left temporal region was greater for those with dysideitic dyslexic disorder as compared with the dysphonetic disorder. The present study shows that quantitative EEG may help to characterize the attentive difficulties in children with ADHD and provide more objective and physiologically based data than are currently available from subjective questionnaires or rating scales.