not contraindicate a cautious trial of stimulant medication. If methylphenidate improves a child's performance in school and lessens stressful situations, it may also result in a reduction in chorea and improved motor abilities.

SEIZURE DISORDERS

EARLY SEIZURES AND HIPPOCAMPAL PATHOLOGY

The relation of childhood seizures to hippocampal neuron loss, mossy fiber synaptic reorganization, and eventual hippocampal sclerosis was investigated at the Brain Research Institute, University of California, Los Angeles, and the Cleveland Clinic Foundation, OH. Surgical epilepsy cases had generalized seizures and extra-hippocampal prenatal cortical dysplasia or postnatal ischemic and encephalitic lesions, or complex partial hippocampal epilepsy. Extra-hippocampal childhood seizures of prenatal or postnatal etiology were associated with moderate fascia dentata and minimal Ammon's horn neuron losses and signs of aberrant mossy fiber sprouting. Children with mesial temporal epilepsy showed patterns of neuron loss and mossy fiber sprouting, typical of adult form hippocampal sclerosis, whereas repeated extra-hippocampal generalized seizures were not associated with progressive hippocampal damage and sclerosis. (Mathern GW, Babb TL, Mischel PS et al. Childhood generalized and mesial temporal epilepsies demonstrate different amounts and patterns of hippocampal neuron loss and mossy fibre synaptic reorganization. Brain June 1996;119:965-987). (Respond: Gary W Mathern MD, Division of Neurosurgery, Reed Neurological Research Center, UCLA Medical Center, Los Angeles, CA 90095).

COMMENT. The authors conclude that childhood seizures can damage postnatal development of hippocampal granule cells, contributing to chronic hippocampal complex partial epilepsy. Generalized seizures are not a cause of hippocampal sclerosis.

HEMIFACIAL SEIZURES AND CEREBELLAR GANGLIOGLIOMA

A female infant with cerebellar ganglioglioma who developed hemifacial seizures from the first day of life is reported from the Miami Children's Hospital, FL. When investigated at 6 months of age there were daily episodes of left hemifacial contraction, resistant to medication, head and eye deviation to the right, nystagmoid jerks to the right, autonomic dysfunction, while consciousness was retained. MRI at 2 months showed a mass in the left cerebellar hemisphere. The scalp EEG recordings were normal, while interictal and ictal intracranial EEGs revealed focal spikes, confirming seizures arising in the region of the left cerebellar mass. Partial resection of a ganglioglioma at 3 months was accompanied by remission of seizures. Six previous reports of infants with hemifacial spasms and cerebellar mass lesions are cited in the literature and reviewed, 3 having gangliogliomas. (Harvey AS, Jayakar P, Duchowny M, Resnick T, Renfroe JB et al. Hemifacial seizures and cerebellar ganglioglioma: an epilepsy syndrome of infancy with seizures of cerebellar origin. Ann Neurol July 1996;40:91-98). (Respond: Dr Jayakar, Neuroscience Center, Miami Children's Hospital, 3100 SW 62nd Ave, Miami, FL 33155).

COMMENT. The authors describe a syndrome of infantile focal facial seizures associated with cerebellar ganglioglioma. Seizures associated with cerebellar tumors in infants and children have been described previously.

The term "ictus infratentorialis" was coined by Penfield and Jasper for attacks of opisthotonus, syncope, vertigo, and focal clonic movements occurring in patients with infratentorial tumors. In a study at the Mayo Clinic of 291 children with intracranial tumors, seizures occurred in 17% of the total group, in 25% of those with supratentorial and in 12% of infratentorial tumors. None had gangliogliomas. (Backus RE, Millichap JG. The seizure as a manifestation of intracranial tumor in childhood. Pediatrics June 1962;29:978-984).

ANTIEPILEPTIC DRUGS

VALUE OF EEG IN ANTIEPILEPTIC DRUG WITHDRAWAL

The prognostic value of the EEG in 120 seizure-free epileptic patients, during and after antiepileptic drug withdrawal, was analyzed at the Department of Neurology, University of Bologna, Italy. Of 128 patients studied with mean age of 28 years, 49 had complex partial seizures (CPS), and 20 had simple partial seizures. Patients included had a history of partial epilepsies treated with AEDs for at least 2 years, and were seizure-free for at least 2 but not more than 6 years. Overall, 75 (63%) relapsed within 3 years from complete drug withdrawal, 29 during drug reduction. Of 36 (30%) showing EEG epileptiform abnormalities at the start of the study, 16 showed an increase in EEG abnormality during and after drug withdrawal. Of 84 with normal EEGs initially, 20 showed epileptiform abnormalities with drug withdrawal. The lowest relapse rate occurred in CPS patients (45%) and the highest in those with SPS (100%). The EEG at the start of the study was not predictive of relapse, but EEG worsening during the withdrawal of AEDs was associated with a significantly higher relapse rate. (Tinuper P, Avoni P, Riva R et al. The prognostic value of the electroencephalogram in antiepileptic drug withdrawal in partial epilepsies. Neurology July 1996;47:76-78). (Reprints: Dr Paolo Tinuper, Department of Neurology, via Foscolo 7, I-40123 Bologna, Italy).

COMMENT. In this study of young adults with partial epilepsies, the EEG was predictive of relapse during but not before starting the withdrawal of antiepileptic drugs, especially if abnormalities appeared when previously absent.

Similar studies in children have not included large numbers of partial epilepsies, but some have indicated a higher relapse rate in female, mentally retarded children with focal neurologic signs and partial seizures. For further reports of the EEG and AED withdrawal see Progress in Pediatric Neurology I, PNB Publ, 1991, pp100-104; and Ped Neur Briefs Dec 1995;9:90. In this 1995 Japanese study, Murakami M et al found a relapse rate of 20% in symptomatic partial epilepsies and 8% in idiopathic partial epilepsies in children. Age dependent factors were important in predicting relapse, peaking at 17 to 19 years for symptomatic partial seizures. Background activity in the EEG was also a predictive factor, the risk of relapse being greater with persistence of slow waves and decreased alpha activity.

AED THERAPY IN PREGNANCY AND FETAL THYROID LEVELS

The neonatal screening results of TSH and 17-hydroxyprogesterone (17-OHP) in 34 study neonates born to mothers exposed to AEDs during pregnancy and their matched controls were evaluated at the Department of Paediatrics, Karolinska Institute, Stockholm, Sweden. The AEDs were carbamazepine 17, phenytoin 10, and polytherapy in 7 patients. In the group as a whole, there