

with migraine and "very brief" headaches, but epileptiform EEG activity does not prove an epileptic origin for headache and its significance in diagnosis and treatment is minimal. (Kramer U, Harel S et al. The value of EEG in children with chronic headaches. Brain Dev July/Aug 1994;16:304-8). (Respond: Dr S Harel, Institute for Child Development and Pediatric Unit, Beit Habriut Strauss, 7 Balfour St, Tel Aviv 65211, Israel).

COMMENT. See Progress in Pediatric Neurology II (PNB Publ, 1994, p 156) for a report of the EEG findings in children with chronic recurrent headaches and response to phenytoin. Grade III epileptiform EEGs were found in 18% of the total and with the same incidence in migraine patients. Migraine was controlled in 77% but a positive response did not correlate with EEG abnormalities; those with normal EEGs were benefited equally. (Millichap JG. Recurrent headaches in 100 children. Electroencephalographic abnormalities and response to phenytoin (Dilantin). Child's Brain 1978;4:95-104). The significance of the EEG in chronic headache evaluation and the mechanism of the anti-migraine effect of phenytoin and other antiepileptic drugs (eg. valproate) need further investigation.

## VASCULAR DISORDERS

### **STROKE AND CEREBRAL INFARCTS IN HIV INFECTION**

Four out of 380 HIV-infected children followed in a 10 year period at the Hopital Bicetre, France, had acute hemiparesis and stroke with MRI and CT evidence of cerebral infarcts. Two patients had giant aneurysms and multiple thromboses, a history of frequent infections, a severe clinical course, and poor or fatal outcome. Two had an isolated thrombosis or necrotic area, a less progressive disease, and a more favorable outcome. In two additional patients, stroke was secondary to a massive cerebral hemorrhage and thrombocytopenia, and to sickle cell disease. (Philippe P, Tardieu M et al. Stroke and cerebral infarcts in children infected with human immunodeficiency virus. Arch Pediatr Adolesc Med Sept 1994;148:965-970). (Reprints: Dr Tardieu, Neurologie Pediatrique, Hopital Bicetre, 94275 Le Kremlin, Bicetre Cedex, France).

COMMENT. Stroke in HIV infected children is rare but variable in underlying pathology and prognosis. The authors anticipate a more frequent incidence of this complication because of improved management and longer survival of patients with HIV.

### **CEREBRAL ARTERIOVENOUS MALFORMATIONS**

A retrospective analysis of 62 children with cerebral arteriovenous malformations (AVM) seen over 17 years is reported from Hospital B, Lille, France. Ages ranged from 3 months to 14 years. Seven had a previous history of headache, and 5 (8%) had been treated for epilepsy. Intracranial hemorrhage and stroke was the presenting manifestation in 54 (87%). AVMs were supratentorial in 41 and infratentorial in 11. Total excision of the AVM was achieved in 47 of 52 operated. At follow-up, 50 had a good clinical outcome based on the Glasgow scale, 6 mild, 2 poor, and 4 died. Recurrent hemorrhage occurred in 3, fatal in 1. AVM recurrences in 2 were treated successfully by radiosurgery. Of ten with aphasia before surgery; 5 had improved. Of 25 with hemiparesis on admission, 12 recovered function and 7 have severe deficits.

Two developed deficits after surgery. Of 7 with residual epilepsy after surgery, 6 are controlled with AEDs. (Hladky JP et al. Cerebral arteriovenous malformations in children: report on 62 cases. Child's Nerv Syst July 1994;10:328-333).

COMMENT. In reviewing the literature the authors report a postoperative mortality in children ranging from 8.5% to 11%, versus 23% to 57% following conservative management. Surgery is considered the most reliable treatment, combining teams experienced in neurosurgery, embolization, and radiosurgery. The smaller the AVM, the higher the risk of hemorrhage, and the greater the indication for surgery after diagnosis is established. The authors view angiography as superior to CT and MRI in diagnosis and management of AVM. Postoperative angiography after 2 years is advised to exclude enlarging residual microshunts or recurrence of AVM.

### TRAUMATIC VERTEBRAL ARTERY DISSECTION

A girl, aged 9 years, with cerebellar infarction following minor neck injury sustained while ice-skating is reported from West Virginia University, Morgantown, WV. Symptoms began 12 hours after the fall, with vomiting that awakened her from sleep and recurred hourly. She complained of a throbbing occipital headache, stiff neck, photophobia, dizziness on standing, and ataxia. She had horizontal nystagmus, dysmetria bilaterally, and she stood and walked only with support. CT and MRI revealed a cerebellar vermian lesion extending into both hemispheres. Posterior fossa decompression and biopsy showed coagulative necrosis and no neoplasm. Vertebral angiography revealed a traumatic aneurysm within the distal right cervical vertebral artery and recanalization of an embolus in the right posterior inferior cerebellar artery with a narrowed lumen. She was treated with aspirin and recovery was complete after 3 months, with no recurrence at 1 year follow-up. (Sheth RJ, Bodensteiner JB et al. Stroke due to a traumatic vertebral artery dissection in a girl. Clin Pediatr Aug 1994;33:503-505). (respond: Raj D Sheth MD, Dept Neurology, Box 9180, West Virginia University, Health Science Center, Morgantown, WV 26506).

COMMENT. Childhood traumatic vertebral artery stroke was previously thought to affect boys only. (Garg BP et al. Neurology 1993;43:2555). With the increased participation of girls in contact sports, more female cases may be expected.

A further case of vertebral-artery dissection occurring in an 11-year-old boy following a judo session is reported from Besancon, France. (Lannuzel A, Rumbach L et al. Neuropediatrics 1994;25:106-108). CT showed a left thalamic infarct, and angiography revealed fibromuscular dysplasia ("string of beads" lesion) of the left vertebral artery with probable dissection. With anticoagulation, bed rest, and a cervical soft collar, symptoms of headaches, vomiting, left ptosis and diplopia, dysphasia, and ataxia resolved, and the boy was discharged taking aspirin after 2 weeks.

### SAFETY OF PHENOBARBITAL IN NEONATES WITH HIE

Phenobarbital treatment (20 mg/kg iv) had no significant effect on cerebral blood flow or blood pressure and heart rate, measured 60 min after a loading dose, in 7 term newborn infants with mild to moderate hypoxic ischemic encephalopathy examined in the Dept of Paediatrics, Alborg Hospital,