COMMENT. The VER is proposed as a useful test in the diagnosis of migraine in children. The test may be especially valuable in the differentiation and diagnosis of cases of periodic or cyclical vomiting when a migrainous etiology is unclear. (Millichap JG. Arch Fr Pediatr 1987; 44:231; Pediatrics 1955; 15:705).

SEIZURE DISORDERS

CORTICAL DYSGENESIS AND INFANTILE SPASMS: PET STUDIES

The identification of focal cortical dysgenesis by positron emission tomography (PET) in 5 of 13 children with cryptogenic infantile spasms is reported from the Departments of Neurology and Pediatrics and Division of Neurosurgery, UCLA School of Medicine, Los Angeles, CA. There was unilateral hypometabolism of cerebral glucose involving the parieto-occipito-temporal region. Neuropathological examination of resected tissue in four infants showed microscopic cortical dysplasia. The CT was normal in all infants and the MRI showed a subtle abnormality only in one. The EEG showed hypsarrhythmia and at times, a localized abnormality corresponding to areas of PET hypometabolism. PET may identify unsuspected focal cortical dysplasia in infants with cryptogenic spasms and resective surgery offers improved prognosis. (Chugani HT, Shields WD et al. Infantile spasms: I. PET identifies focal cortical dysgenesis in cryptogenic cases for surgical treatment. Ann Neurol April 1990; 27:406-413).

COMMENT. Early studies showed that infantile spasms were cryptogenic in about 40% of patients (Millichap et al. Epilepsia 1962; 3:188) whereas more recent studies have demonstrated that this figure has diminished to 9-14%. The PET studies have uncovered further symptomatic cases previously not identified by CT and MRI. The same authors report lenticular nuclei hypermetabolism in 12 of 25 infants with spasms of cryptogenic or symptomatic types. They suggest that the lenticular nuclei may contribute to the pathogenesis of infantile spasms. (Chugani HT et al. Neurology April 1990; 40:suppl 1:407).

TUBEROUS SCLEROSIS AND INFANTILE SPASMS

The short- and long-term outcome of 24 children with infantile spasms and tuberous sclerosis was studied at the Department of Pediatrics, University of Turku, Finland and at the Children's Hospital, University of Helsinki. They comprised 10% of all cases of infantile spasms treated in the two hospitals between 1964 and 1985. CT showed brain calcifications in 20 patients examined at an early age. Three of 14 patients tested by renal ultrasound had large polycystic kidneys and severe arterial hypertension. Early diagnosis and the avoidance of ACTH therapy could have prevented hypertensive crises secondary to ACTH injections. One child developed severe myocardial hypertrophy during ACTH therapy and two had rhabdomyomas demonstrated by cardiac ultrasound and angiography at age one week. Short-term