relating them to life situations, and to urge discussion of feelings daily with a friend or parent. A second control method labelled "own best efforts" consisted of a single session to discuss the use of the headache diary to determine triggering factors. The value of the treatments were determined by questionnaires concerning headache frequency and severity and confidence in the method and therapist. Patients in all three treatment groups showed a significant reduction in headaches following treatment for 4 weeks and at 3 and 12 month follow-up. Relaxation training was no more effective than brief reassurance and self-control suggestion techniques in treating pediatric migraine. (McGrath PJ et al. Relaxation prophylaxis for childhood migraine: a randomized placebo-controlled trial. Dev Med Child Neurol Oct 1988;30:626-631).

COMMENT. The incidence of migraine in children and adolescents has been estimated at 5 - 7%. Pharmacological intervention has been the usual approach to treatment but self-regulation methods may be helpful and may reduce reliance on drugs of doubtful efficacy. In one well-controlled trial, propranolol was ineffective when compared to placebo (Forsythe WI et al. Dev Med Child Neurol Dec 1984;26:737). The average duration of headache was greater during the propranolol period (40 mg two or three times daily) and the frequency was not reduced. Food allergy has been emphasized as a causative factor, and dietary therapy eliminating such foods as cow's milk, egg, chocolate, orange, and wheat, or other allergenic items has been proposed as an alternative to drugs in childhood migraine (Egger J et al. Lancet 1983;2:865: and J Pediatr Jan 1989;114:51: see p. 91 of this issue of Ped Neur Briefs).

VASCULAR DISORDERS

NEONATAL TRANSVERSE SINUS THROMBOSIS

Four full-term newborns with transverse sinus thrombosis (TST) and a benign outcome are described from the Children's Hospital of Los Angeles and USCSM, and the University of Texas Medical School, Houston, TX. The infants presented with irritability, jitteriness, and mild hypertonia. One had seizures and 3 had abnormal EEGs with temporal or central sharp waves. The CSF was xanthochromic and contained excess red blood cells. In 2 of 4 followed up, the neurological exam was normal. MRI scans which permit diagnosis of TST show a hyperintense signal of the sinus thrombosis in T1- and T2- weighted images and subdural and subarachnoid hemorrhages. Partial thrombosis can be seen as a ring of central hyperintense signal surrounded by a halo of signal void that corresponds to flowing blood. The authors suggest that TST may be relatively common, with a wide spectrum of severity. (Baram TZ et al. Transverse sinus thrombosis in newborns: clinical and magnetic resonance imaging findings. Ann Neurol Dec 1988;24:792-794).

COMMENT. Sinus thromboses in newborns are most commonly associated with birth trauma and intracranial

hemorrhage. A mild tentorial laceration was considered likely in the cases reported. An inherited protein C deficiency may be manifested by massive venous thromboses in the newborn (Seligsohn U et al. N Engl J Med 1984;310:559), an etiology to be considered in the absence of a history of brain trauma.

TRANSPOSITION OF GREAT VESSELS AND MOBIUS SYNDROME

The vascular theory of embryopathogenesis for Mobius syndrome is proposed in a case report of a 3-month-old boy from the University of New Mexico School of Medicine, Albuquerque, NM. At birth, he had bilateral facial and abducens palsies, left acheiria (congenital absence of the hand), and transposition of the aorta and pulmonary artery. He was lethargic, cyanotic, and in respiratory distress, and he expired after an arterial switch procedure with closure of a septal defect. The authors cite 2 reports of Mobius syndrome with cardiac anomalies, both presenting with dextrocardia and the Poland anomaly (unilateral hypoplasia or absence of pectoral muscles, nipple, and upper limb). An intrapartum insult during the fourth to seventh week of gestation is consistent with the vascular theory of embryopathogenesis. (Raroque HG, Hershewe GL, Snyder RD. Mobius syndrome and transposition of the great vessels. Neurology Dec 1988;38:1894-5).

COMMENT. Congenital facial diplegia and abducens palsy, Mobius syndrome, has been explained as either a primary hypoplasia of cranial nerve nuclei or a primary deficiency of the muscles derived from the first two branchial arches. A dysgenesis of both neural and muscular tissue has been proposed in some cases. In the above case report, the concomitant occurrence of the vascular anomaly supports the theory of impaired cranial nerve nuclear development due to interruption of vascular supply at or around the sixth intrauterine week.

DEVELOPMENTAL DISORDERS AND LEARNING

VON RECKLINGHAUSEN NEUROFIBROMATOSIS

A population-based study in southeast Wales and reported from the Institute of Medical Genetics and Section of Neurology, University of Wales College of Medicine, Cardiff, has identified 135 patients with neurofibromatosis type 1 (NF-1), a prevalence of approximately 1/5000. The major clinical features were multiple cafe-au-lait spots, dermal neurofibromas, Lisch nodules in the iris (93%), freckling in the axilla (67%) or groin (44%), macrocephaly (45%), and short stature (34%). Complications included plexiform neurofibromas in 40 (30%) patients, mental retardation in 13 (10%) severe in only 1, epilepsy 6 (4%), severe scoliosis 6, visceral and endocrine tumors 6, optic glioma 2, spinal neurofibroma 2, aqueductal stenosis 2, delayed puberty 2, and congenital glaucoma 1. No cases of acoustic neuroma were seen. The frequency of CNS and malignant tumors was 5%. The authors recommend regular biannual examinations during childhood, with particular attention to intellectual