

phosphatase, and amylase were noted. (Ogunmekan AO, Hwang PA. A randomized, double-blind, placebo-controlled, clinical trial of D-a-tocopheryl acetate (Vitamin E), as add-on therapy, for epilepsy in children. Epilepsia Jan/Feb 1989;30:84-89).

COMMENT. These authors and others have reported reduced plasma levels of Vitamin E in children taking antiepileptic drugs. Hyperbaric oxygen-induced seizures in rats are prevented by prior administration of Vitamin E. (Jerrett SA et al. Aerospace Med 1973;44:40-4). The clinical trial reported here and a previous uncontrolled study support the experimental findings in animals that Vitamin E may inhibit the effects of oxidation in brain tissue and act as a membrane stabilizer in epileptic cerebral cortex. Further trials of this adjunctive treatment for refractory epilepsies are certainly warranted.

HEADACHE

PSYCHOLOGICAL FACTORS IN ADOLESCENT HEADACHE

Seventy high school students between 16 and 18 years of age reporting a headache frequency of once a week or more were compared with a headache-free control group and were studied by questionnaires for psychosocial, health-behavior, and medical problems at the Dept of Child and Youth Psychiatry, University Hospital of Uppsala, Sweden. Adolescents with recurrent tension and migraine headaches reported significantly more somatic symptoms and psychological distress than controls, they were more often absent from school, and used the school health service more than controls. Their parents were more often divorced and suffered more frequently from headache and abdominal pain. Nervous problems, anxiety, depression, homework time, somatic symptoms and absence from school were psychosocial predictors of headache susceptibility. (Larsson B. The role of psychological, health-behavior and medical factors in adolescent headache. Dev Med Child Neurol Oct 1988;30:616-625).

COMMENT. These results differ from a previous study of anxiety in childhood migraine. Patients with migraine and their parents who completed standardized anxiety, personality, and life-event scales showed no significant difference from controls. All patients had anxiety scores within normal. Patient selection and the omission of tension headache sufferers could explain the difference in findings.

RELAXATION TREATMENT FOR MIGRAINE

Relaxation training was compared to two control placebo psychological methods of treatment in 99 children and adolescents with frequent migraine at the Children's Hospital of Eastern Ontario, University of Ottawa, Canada. Relaxation methods consisted of 6, one-hour, weekly sessions in which children were taught sequential tensing and relaxation of large muscle groups and the use of deep breathing. Placebo treatment consisted of therapy sessions to teach recognition of emotions,

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