

HEADACHE DISORDERS

PERI-ICTAL HEADACHES IN CHILDREN WITH EPILEPSY

The frequency and character of preictal and postictal headaches in 101 children (aged 5-18 years) with generalized tonic-clonic or partial seizures were determined by interviews and clinic chart reviews, in a study at Alberta Children's Hospital, Calgary, Canada. Peri-ictal headaches were reported by 41% (postictal only in 29%, preictal only in 5%, both in 7%). The headaches were migrainous in 50% of preictal and 58% of postictal headaches. Interictal headaches occurred in 24%; they were migrainous in 14%. Peri-ictal headaches in children were mostly bilateral. Headaches were relieved by acetaminophen or ibuprofen in the majority of the 50% of patients treated. (Cai S, Hamiwka LD, Wirrell EC. Peri-ictal headache in children: prevalence and character. **Pediatr Neurol** Aug 2008;39:91-96). (Respond: Dr Elaine C Wirrell, Division of Child and Adolescent Neurology, Mayo Clinic, 200 First Street SW, Rochester, MN 55902. E-mail: wirrell.elaine@mayo.edu).

COMMENT. Peri-ictal headaches are common in children with epilepsy. They are usually migrainous in type and bilateral in location. They are relieved by simple analgesics but in practice, are rarely treated.

SLEEP AND POLYSOMNOGRAPHIC DISORDERS IN EPILEPSY

Polysomnographic findings in 90 children with headaches and complaints of sleep problems were correlated with type of headache (migraine in 60, chronic migraine in 11, tension headache (6), and nonspecific headache (13)), headache severity, body mass index, and medical treatment, in a study at St Christopher's Hospital for Children, Philadelphia, PA. The median age was 11 years (range, 5-19 years). Sleep-disordered breathing occurred in 56% of children with migraine, 54% of nonspecific headache patients, 27% children with chronic migraine, and none with tension headache. Severe and chronic migraine was associated with shorter sleep time, longer sleep latency, and shorter rapid eye movement and slow-wave sleep. Children with nonspecific headache and sleep-disordered breathing had higher body mass indexes ($P=0.008$). Bruxism occurred in 50% of children with tension headache vs 2.4% of those with nontension headache. Migraine patients taking prophylactic medication showed no differences in sleep parameters vs those not receiving prophylaxis. The results support an association between headaches, especially migraine, and sleep disorders in children. Migraine awoke the child during the night or in early morning in 9 of 60 (15%) patients. (Vendrame M, Kaleyias J, Valencia I, Legido A, Kothare SV. Poltsomnographic findings in children with headaches. **Pediatr Neurol** July 2008;39:6-11). (Respond: Dr Kothare, Department of Neurology, Children's Hospital Boston, Harvard Medical School, Fegan 9, 300 Longwood Ave, Boston, MA 02115. E-mail: sanjeev.kothare@childrens.harvard.edu).

COMMENT. Children with migraine headache are affected by sleep-disordered breathing more frequently than children with tension headache. Children with tension headache have a twofold higher risk of nocturnal bruxism than children with other types of

headache. A higher body mass index in children with nonspecific headache predisposes to sleep-disordered breathing and leads to sleep disorders. Polysomnography may help to clarify the association of headache and sleep disturbances.

CEREBRAL BLOOD FLOW AND MIGRAINE

Blood flow in the basilar and internal carotid arteries and diameters of middle meningeal, carotid, and cerebral arteries were measured using 3Tesla magnetic resonance angiography, at baseline, during infusion of nitroglycerin or placebo, and during a provoked attack, at 6 hrs after infusion, in 32 migraineurs, aged 18-55 years, in a study at Leiden University Medical Centre, the Netherlands. Migraine headache was provoked in 20/27 (74%) migraineurs who received nitroglycerin, but in none of 5 patients who received placebo. Nitroglycerin caused a transient vasodilatation of all blood vessels. Blood vessel diameters were no different during a provoked migraine attack compared to baseline, nor between headache and non-headache sides. Blood flow in the basilar and internal carotid arteries was unchanged during nitroglycerin infusion and migraine headache. (Schoonman GG, van der Grond J, Kortmann C, van der Geest RJ, Terwindt GM, Ferrari MD. Migraine headache is not associated with cerebral or meningeal vasodilatation – a 3T magnetic resonance angiography study. *Brain* Aug 2008;131:2192-2200). (Respond: GG Schoonman MD, Department of Neurology (KS-Q), Leiden University Medical Centre, PO Box 9600, 2300 RC Leiden, The Netherlands. E-mail: g.g.schoonman@lumc.nl).

COMMENT. Contrary to current theory of migraine mechanisms, vasodilatation of cerebral or meningeal blood vessels is not of primary importance in the pathophysiology of the migraine headache.

NEUROCUTANEOUS SYNDROMES

SYMPTOMS AND COURSE OF XERODERMA PIGMENTOSUM

Sixteen Finnish patients with xeroderma pigmentosum (XP) were followed for up to 23 years, and their neurological symptoms and course determined in a study at Turku University Central Hospital, Finland; Erasmus University, Rotterdam, The Netherlands; University of Brighton, and University of Sussex, UK. Severe sunburn with minimal sun exposure in early infancy was the first sign of the disease in all cases, only 2 cases being diagnosed at that time. XP patients are assigned in 8 complementation groups, XP-A and XP-C being the most common groups in Europe. Neurological symptoms occur most often in XP-A patients. In XP-C patients, skin problems are severe, but neurological symptoms are rare.

Seven of the 16 Finnish patients were classified as XP-A. All had short stature and microcephaly. They developed normally until age 2 years, but neurological and cognitive dysfunction was apparent in childhood, before the age of 8 years. Cerebellar ataxia was recognized before age 4-16 years, followed by sensory motor neuropathy with areflexia, and sensorineural deafness. Cognitive problems were associated with an unusual tendency to weep and to be frightened. In early adulthood, 8 of 11 patients had developed choreoathetoid