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HEADACHE DISORDERS

EEG IN HEADACHE EVALUATION

A literature review of articles published between 1941 and 1994 was used to determine the utility of the electroencephalogram in the evaluation of patients with headache and the results are reported from the Departments of Neurology, Lackland AFB, TX, and Andrews AFB, MD. EEG findings that occurred more frequently in headache patients than in controls were as follows: generalized or focal slowing, hyperventilation-induced high-voltage slowing, excessive fast activity, epileptiform discharges, prominent photic driving, and differences in symmetry and frequencies of alpha rhythm. Two studies showed an increased prevalence of 14 & 6 positive spikes in the EEGs of children with migraine. One author suggested that headaches of children whose EEGs demonstrated epileptiform activity would respond best to anticonvulsants. In well controlled studies, a prominent photic driving response at high flash rates (the "H-response") was the only abnormality distinguishing headache patients from those without headache and migraine from other headache types. Clinical criteria were of greater diagnostic value than the EEG in identifying headache subtypes, including those with structural lesions. (Gronseth GS, Greenberg MK. The utility of the electroencephalogram in the evaluation of patients presenting with headache: A review of the literature. Neurology July 1995;45:1263-1267). (Reprints: Lt Col Gary S Gronseth, Department of Neurology (PSMN), Wilford Hall Medical Center (AETC), 2200 Bergquist Drive STE 1, Lackland AFB, TX 78236).

COMMENT. The authors conclude that the EEG is not indicated in routine evaluations of patients presenting with headache. However, they do recommend an EEG in patients with headache and symptoms suggestive of seizures and in those with atypical migrainous auras or episodic loss of consciousness. In one article not cited by the authors, 77 percent of 30 children with migraine benefited from treatment with the anticonvulsant, phenytoin. Response to phenytoin was not correlated

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with an abnormal EEG. In 13 with abnormal and 17 with normal EEGs, the beneficial response rates were 61% and 88%, respectively. (Millichap JG. Recurrent headaches in 100 children. Electroencephalographic abnormalities and response to phenytoin (Dilantin). Child's Brain 1978;4:95-104).

MIGRAINE ASSOCIATED SYMPTOM PREVALENCE

A review of associated symptoms of migraine determined by telephone survey of 500 self-reported migraine sufferers is reported from Temple University School of Medicine and the Comprehensive Headache Center, Germantown Hospital, Philadelphia, PA. Female to male preponderance was 443 to 57; 5.6% were younger than 25 years old. Seventy-one percent took abortive medication, and 26.5% received both abortive and prophylactic medication. Precipitating factors included stress (79%), changes in weather (44%), premenstruation (37%), changes in light (34%), and eating certain foods (30%). Symptoms associated with migraine attacks were headache (96%), nausea/vomiting (32%), photophobia (83%), noise sensitivity (60%), dizziness (65%), eye pain, and neck pain (79%). Nausea occurred in one half of attacks in >90% of respondents, and vomiting in one third of attacks in 70%, interfering with oral medication in 30% and 42%, respectively. Many childhood migraineurs have a history of cyclical vomiting, a recognized precursor of migraine. (Silberstein SD. Migraine symptoms: Results of a survey of self-reported migraineurs. Headache July/August 1995;35:387-396). (Respond: Dr Stephen D Silberstein, The Comprehensive Headache Center, Germantown Hospital, One Penn Blvd, Philadelphia, PA 19144).

COMMENT. The authors emphasize the significance of nausea and vomiting as associated symptoms affecting the degree of disability of migraine sufferers. Drugs used to treat migraine often cause nausea and may exacerbate associated symptoms while relieving headache. The treatment or avoidance of nausea may be as important as the relief of headache. The route of administration of migraine medication can alter the prevalence of side-effects. Nausea and/or vomiting occur more frequently with oral administration of ergotamine or sumatriptan than with injection therapy.

Revisions to the International Headache Society classification proposed for pediatric migraine proved more sensitive than existing criteria in a study of 45 children and adolescents at the Palm Beach Headache Center, Florida. For pediatric migraine without aura, the revisions included headache attacks as short as 30 minutes and a bilateral location in addition to unilateral headache. For those pediatric migraines with aura, the only proposed revision was a decrease in duration of headache from 2 - 48 hours to one half - 48 hours. Diagnostic rates increased from 53% to 80%, using the revised criteria. (Winner P et al. Classification of pediatric migraine: Proposed revisions to the IHS criteria. Headache July/August 1995;35:407-410).

HEADACHE AND STOMACH-ACHE CO-OCCURRENCE SYNDROME

Psychosocial risk factors for headache and stomach-ache and their co-occurrence were investigated in a longitudinal study of Norwegian children aged 4-10 years at the Department of Health and Society, National Institute of Public Health, Oslo, Norway. Children with headache only were well behaved