MIGRAINE-RELATED STROKE

The diagnosis of migraine-related stroke is reviewed and case histories provided from the Center for Stroke Research, Department of Neurology, Henry Ford Hospital, Detroit, MI. The collaborative group for the study of stroke in young women defined the relative risk for thrombotic stroke as two-fold for women with migraine when compared with a neighbor but not with a hospital control. In 448 total stroke cases 4% were attributed to migraine. The classification of migraine-related stroke is in three categories: 1) Coexisting stroke and migraine, 2) stroke with clinical features of migraine, and 3) migraine-induced stroke. Several arteriovenous malformations frequently masquerade as migraine with aura, oral contraceptives increase stroke risk and may cause coexisting stroke and migraine and ergot therapy for migraine is sometimes complicated by stroke. The pathogenesis of migraine-induced stroke includes coagulation, hemodynamic and neuronal factors. The initiation of a migraine attack is a primary neuronal phenomenon with metabolic and cerebral hemodynamic consequences. A low cerebral blood flow combined with factors which predispose to coagulopathy may lead rarely to intravascular thrombosis and migraine-induced cerebral infarction. (Welch KMA, Levine SR. Migraine-related stroke in the context of the international headache society classification of head pain. Arch Neurol April 1990, 47:458-462).

> COMMENT. Stroke associated with migraine in children is rare and is an indication for exclusion of an underlying structural cerebral lesion, e.g. arteriovenous malformation, congenital cerebral arterial occlusion, and encephalomalacia. Classical migraine associated with intractable epilepsy and multiple strokes has been described with mitochondrial encephalopathies. (Dvorkin GS, Andermann F et al, 1987).

VISUAL EVOKED RESPONSES IN MIGRAINE

The visual evoked responses (VERs) to flash and pattern stimulation were examined in 44 children with migraine and 8 with periodic syndrome at the Birmingham and Midland Eye Hospital, Birmingham, England. Patients younger than 13 years had higher fast wave amplitude and lower fast wave frequency than controls in the same age groups. In older children the fast wave amplitude was higher in those with migraine than in controls but fast wave frequencies were not different. Children with periodic syndrome had similar fast wave amplitudes to the younger children with migraine. The high fast wave frequency with superimposed intermittent high amplitude sharp waves after flash stimulation seen in patients with periodic syndrome are similar to those seen in acephalgic migraine in adults. The finding of similar VERs in migraine and periodic syndrome supports the inclusion of periodic syndrome in the international classification of migraine. (Mortimer MJ et al. Visual evoked responses in children with migraine: a diagnostic test. Lancet January 13, 1990; 335:75-77).