

VARICELLA AND CEREBRAL INFARCTION

A relation between varicella and idiopathic arterial ischemic stroke in children was determined in a case control study at the Universite Catholique de Louvain, Brussels, Belgium, and the Centre Hospitalier Bicetre, France. Strokes were confirmed by arteriography in 11 of 41 children, ages 1 month to 15 years (mean, 4 years), referred for arterial infarct, Jan 1985-June 1996. Seven of the 11 children with stroke (64%) had been diagnosed with varicella within the previous 9 month period (median, 6 weeks; range, 9 days to 9 months) compared to 4 of 44 (9%) in the control group. The difference was significant ($p < 0.001$). The incidence of varicella in the control group was equal to that expected in the general pediatric population in France. A lack of subsequent recurrence of stroke and regression or stabilization of the infarct after at least 18 months of follow-up are supportive of a temporal relationship between varicella and the later development of cerebral infarction. (Sebire G, Meyer L, Chabrier S. Varicella as a risk factor for cerebral infarction in childhood: a case-control study. Ann Neurol May 1999;45:679-680). (Respond: Dr Guillaume Sebire, Service de neurologie, Departement de pediatrie, Cliniques Universitaires Saint Luc, Universite Catholique de Louvain, 10 avenue Hippocrate, 1200 Brussels, Belgium).

COMMENT. Delayed onset hemiparesis and cerebral vascular thrombosis occurring approximately 6 weeks after primary varicella zoster virus infection may explain some cases of idiopathic stroke in children. Bodensteiner JB and associates have previously described the clinical features of vascular thrombosis following varicella (AJDC 1992;146:100-102), and Mintz M, Epstein LG, and Koenigsberger MR found that idiopathic childhood stroke may be associated with human leukocyte antigen (HAL-B51), a common immunogenetic marker, suggesting a genetic predisposition (Ann Neurol 1992;31:675-677). Host factors triggered by viral infection such as varicella may contribute causally to the vascular occlusion. The delay in onset of stroke could result from the time taken for the vascular media to be infected with the virus (see Progress in Pediatric Neurology II, PNB Publishers, 1994;p376 for reports and commentary).

Varicella related childhood stroke occurs in early childhood, is usually delayed for weeks after the rash, and infarcts, best demonstrated by MRI, are located in the basal ganglia and/or internal capsule. The prognosis is invariably good, with complete or near-complete recovery. Several publications have emphasized the probable importance of varicella virus in the cause of idiopathic stroke, but the report from Belgium may be the first case-control study demonstrating a significant temporal relationship between idiopathic arterial ischemic strokes of children and varicella-zoster virus infection.

ANTIPILEPTIC DRUGS

TOPIRAMATE ADJUNCTIVE THERAPY FOR PARTIAL SEIZURES

The efficacy and safety of topiramate (TPM) (6 mg/kg/day) in children age 2 to 16 years, as adjunctive therapy for uncontrolled partial-onset seizures (75% complex partial), with or without secondarily generalized seizures, were evaluated in a multicenter, randomized, double-blind, placebo-controlled trial, organized by the Topiramate YP Study Group. Comparing 41 TPM-treated with 45 patients receiving placebo, the TPM group showed a greater median percent reduction from baseline in the average monthly partial-onset seizure rate (33% versus 10%, $p=0.034$), a greater proportion with a >50% seizure reduction (39% versus 20%, $p=0.08$) or >75% seizure reduction (17% versus 2%, $p=0.019$), and better parental