

and the presence of T2 weighted hyperintensities in the MRI of 52 affected children who had no major neurologic complication or frank retardation. Further studies are needed to define the significance of these hyperintense foci.

SEIZURE DISORDERS

CSF GLUCOSE IN FEBRILE CONVULSIONS

The effects of convulsion and fever on the CSF and blood glucose concentrations in febrile and non-febrile children, with and without convulsions, have been studied at the Department of Paediatrics, Kuopio University Hospital and Department of Pharmacology and Toxicology, University of Kuopio, Kuopio, Finland. The concentration of glucose in the CSF was significantly higher in febrile children with and without convulsions than in non-febrile, non-convulsive children. Both fever and convulsions increased the CSF glucose levels. The body temperature plotted against the CSF glucose showed a linear correlation. Blood glucose paralleled CSF levels in all groups. Hyperglycemia and elevated CSF glucose in febrile convulsions are apparently secondary to both the fever and convulsion, not the convulsion alone. (Kiviranta T et al. The role of fever on cerebrospinal fluid glucose concentration of children with and without convulsions. Acta Paediatr 1995;84:1276-9). (Respond: Dr T Kiviranta, Department of Paediatrics, Kuopio University Hospital, PO Box 1777, FIN-70211, Kuopio, Finland).

COMMENT. Of 110 patients with febrile seizures examined personally, the cerebrospinal fluid was essentially normal in 86 tested. The concentration of sugar was greater than 80 mg/100 ml in 24 patients and 100 mg/100 ml or higher in 11. (Millichap JG et al. 1960). A review of the literature in the 1960s revealed 18 publications between 1934 and 1964, which included the CSF findings of 500 children with febrile convulsions. Elevations of CSF sugar were found in only three reports, in addition to my own study, the first in 1938, and these involved 37 of 68 patients tested. (Millichap JG. Febrile Convulsions, New York, Macmillan, 1968). The present study attempts to elucidate the mechanism of the increased CSF sugar concentration found in some children with febrile convulsions. Both fever and convulsion were found to have a role in elevating the CSF sugar levels.

PAINFUL HAND SEIZURES

A 14-year-old boy with habitual painful seizures of the backs of both hands since age 4 is reported from the Department of Pediatric Neurology, Osaka Medical Center, Japan. He had three febrile convulsions from one to three years of age. Painful hand seizures occurred 5 - 15 times daily, lasting 15 - 60 seconds, and occasionally followed by loss of consciousness and postictal confusion but no secondarily generalized seizures. Seizures were resistant to conventional medications until 13 years of age, when they showed some response to polytherapy with carbamazepine, valproate, and clonazepam. Interictal EEG showed frequent spikes and spike-waves over the right frontopolar area with spread to the left frontal region. Ictal EEG showed right temporal 4-6Hz rhythmic activity after a pain sensation. CT and MRI were normal. SPECT showed right temporal hypoperfusion. These secondary sensory seizures were thought to originate from the S2A area. (Otani K et al. Bilateral painful epileptic seizures of the hands. Dev Med Child Neurol Oct 1995;37:933-