Oct 1996;38:873-880). Genetic heterogeneity with autosomal recessive and dominant variants was suggested by familial cases, casting doubt on the perinatal hypoxic-ischemic etiology of this form of CP.

SEIZURE DISORDERS

HERPESVIRUS 6 INFECTION AND FEBRILE SEIZURES

The link between human herpesvirus-6 (HHV-6) and other viruses and febrile convulsions (FC) in 65 children (mean age 18 months) with a first episode of simple FC (Group 1) compared to 24 children (mean age 19 months) with a febrile syndrome without FC (Group 2), was examined at the University of Modena, and the Civil Hospital of Sassuolo, Italy. HHV-6 was found in 23/65 of group 1 patients and 12/24 of group 2; adenoviruses in 9/65 of group 1 and in 0/24 of group 2. Of 35% FC cases testing positive for HHV-6, only 17% had the typical exanthema. In the HHV-6 infected group, children who developed FC had lower total immunoglobulins, especially IgM. Children with FC were more likely to have a family history of FC and circulating granulocytes. Of 57 patients followed for 2 years, 9 (15%) had a second FC, and HHV-6 reactivations were three times more frequent in this group. (Bertolani MF, Portolani M, Marotti F et al. A study of childhood febrile convulsions with particular reference to HHV-6 infection: pathogenic considerations. Child's Nerv Syst Sept 1996;12:534-539). (Respond: Dr Maria F Bertolani, Section of Pediatrics, University of Modena, Largo del Pozzo, 71, I-41100 Modena, Italy).

COMMENT. The authors speculate that several viruses, especially HHV-6, may be implicated in causation of febrile convulsions in two thirds of cases, and may be reactivated to induce recurrences. The heredity factor is also important, involving a reduced immune response to viral infection in susceptible children. Those who develop FC with HHV-6 infection have a marked granulocytosis and reduced immunoglobulins, IgA and IgM. The influence of enhanced cytokine production in FC is unproven.

Febrile seizures caused by fever induced by HHV-6 infection and roseola are not always simple in type. They are frequently prolonged, recurrent, and complex, and sometimes a manifestation of encephalitis or encephalopathy. For additional reports of HHV-6 infection and febrile seizures, see Ped Neur Briefs Sept 1994, and Progress in Pediatric Neurology II, 1994:410-411.

Iron deficiency anemia and febrile convulsions are linked in a study from the University of Naples, Italy. (Pisacane A, Sansone R, Impagliazzo N et al. BMJ 10 Aug 1996;313:343). Anemia (Hgb <105 g/l, serum iron <5.4 mcmol/l) occurred in 30% of FC cases compared to 10% in the non-FC control population. Iron deficiency anemia has also been associated with a case of reversible focal neurologic deficits, and with breath-holding spells. (Progress in Pediatric Neurology I, 1991:397-398).

EARLY TREATMENT OF SEIZURE PREVENTS RECURRENCE

The rate of occurrence of a second seizure after a single unprovoked generalized tonic-clonic seizure was compared in 45 patients who received immediate anticonvulsant therapy and 42 untreated patients followed for 36 months at the Edith Wolfson Medical Center, Holon, and the Sackler Faculty of Medicine, Tel Aviv, Israel. A second epileptic attack occurred in 29 (71%) of the untreated group and in 10 (22%) of the treated group. The risk rates for

relapse in untreated patients were 0.33, 0.62, and 0.77 and, in the treated group, 0.1, 0.2, and 0.4, after 12, 24, and 36 months, respectively. Treated men were less susceptible to recurrence than treated women. EEG abnormalities were observed in 20% of both treated and untreated patients, and rate of seizure recurrence was not correlated with EEG epileptiform activity. Treatment consisted of carbamazepine (10 mg/kg/day) in 36 (80%) patients; it had to be changed to valproic acid (600-1200 mg/d) in 9 (20%). (Gilad R, Lampl Y, Gabbay U, Eshel Y, Sarova-Pinhas I. Early treatment of a single generalized tonic-clonic seizure to prevent recurrence. Arch Neurol November 1996;53:1149-1152). (Reprints: Ronit Gilad MD, Department of Neurology, the Edith Wolfson Medical Center, Holon 58100, Israel).

COMMENT. The age range of these patients was 18 to 50, mean 30 years. Studies in children and adolescents might show different results. The benefits of immediate anticonvulsant treatment in these adults is apparent, but the decision to begin treatment after a single seizure must be made on an individual basis, having regard to drug toxicity on the one hand and the adverse consequences of a seizure recurrence on the other. Risk factors for recurrence of seizures, with and without therapy, require further study in children and adult populations. Previous studies have shown seizure recurrence rates varying from 33 to 80%.

RASMUSSEN ENCEPHALITIS: SURGICAL BENEFITS

Social communication, language, and PET glucose utilization were studied before and after right hemispherectomy in four children with Rasmussen encephalitis (RE) at the University of California, Los Angeles. Improved social communication and language following surgery was related to age at onset, duration of illness, and reversibility of the hypometabolism in the nonresected prefrontal cortex. Improvements in communication and language were not accompanied by improved IQ scores. Early surgical treatment might lessen the degree of deficit in communication and language skills. Onset of RE after age 11 years is associated with less social communication deficit. (Caplan R, Curtiss S, Chugani HI, Vinters HV. Pediatric Rasmussen encephalitis: social communication. language, PET, and pathology before and after hemispherectomy. Brain Cogn Oct 1996;32:45-66). (Reprints: Dr R Caplan, Neuropsychiatric Institute, 760 Westwood Plaza, Los Angeles, CA 90024).

COMMENT. Right hemisphere damage is associated with delays in language development. Surgery performed early to control seizures prevents further deterioration in intellectual functioning and results in improved language and communication skills.

CNS NEOPLASMS

PROGNOSIS OF INTRACRANIAL EPENDYMOMAS

Grading and localization of 67 intracranial ependymomas operated on in children less than 15 years of age from 1951 to 1990 were correlated with prognosis in a retrospective study at the University of Koln, Germany. Grade II ependymomas (38) were located in the IV ventricle and supratentorial midline, making complete removal impossible. The majority of grade III anaplastic, malignant tumors (28) were in the cerebral hemispheres and were totally removed. Operative mortality was higher in grade II than grade III. Median