

Serum potassium concentrations showed no significant changes between simple and complicated FC groups. (Kiviranta T, Airaksinen EM. Low sodium levels in serum are associated with subsequent febrile seizures. Acta Paediatr Dec 1995;84:1372-4). (Respond: Dr Tuula Kiviranta, Taivallahdentie 7, FIN-70620 Kuopio, Finland).

COMMENT. Hyponatremia may increase the risk for complicated and multiple FC during the same febrile illness.

A further study by the above investigators concerns "osmolality and electrolytes in cerebrospinal fluid and serum of febrile children with and without seizures." (Kiviranta T, Tuomisto L, Airaksinen EM. Eur J Pediatr Feb 1996;155:120-125). CSF osmolality was lower in 60 febrile children than in 30 nonfebrile controls. The febrile groups, 36 with and 24 without seizures, did not differ, but those with repeated FC had lower CSF osmolality than the simple FC group. Differences in serum osmolality between groups were smaller than those in the CSF. Serum and CSF osmolalities showed a positive correlation. The body temperature and osmolality values were negatively correlated. Decreases in CSF sodium concentration with increasing body temperature paralleled those of CSF osmolality. Age was used as a covariant in group comparisons, since osmolality and sodium concentration in CSF correlated with age in nonfebrile children. For further reference to hyponatremia in febrile convulsions, see Ped Neur Briefs June 1995;9:48.

## OTHER SEIZURE DISORDERS

### **BENIGN PARTIAL EPILEPSY IN INFANCY**

The frequency of occurrence of benign partial epilepsy in infancy (BPEI) in a first line general hospital was determined among 75 patients presenting with epilepsy in the first 2 years of age and evaluated between 1987 and 1993 at the Departments of Paediatrics, Anjo Kosei Hospital, Anjo Aichi, and Nagoya University School of Medicine, Nagoya, Japan. Twenty two (29%) fulfilled the definition of BPEI: partial or secondary generalized seizures, clusters of seizures in 17, normal development, normal EEG, and good response to treatment. Average age at onset was 5.9 months. Average seizure persistence was 3 months. (Okumura A et al. Benign partial epilepsy in infancy. Arch Dis Child Jan 1996;74:19-21). (Respond: Dr Akihisa Okumura, Department of Paediatrics, Anjo Kosei Hospital, 12-38 Miyukihonmachi, Anjo Aichi 446, Japan).

COMMENT. Contrary to previous reports BPEI in this study was not rare. When cases of West's syndrome were excluded from the group, nearly half the patients presenting with epilepsy in the first two years of life fulfilled the criteria for BPEI. The initial manifestations of the BPEI observed at this center were impaired consciousness, decreased responsiveness, and cyanosis.

### **PRETREATMENT SEIZURE FREQUENCY, CONTROL & REMISSION**

The effect of the number of seizures before antiepileptic drug (AED) treatment on the ease of seizure control and remission was studied in a population-based regional cohort of 479 children with epilepsy at the IWK Children's Hospital, Halifax, Nova Scotia, Canada. Only 55 of 99 patients (56%) with more than 10 pretreatment seizures were seizure free for a sufficient time to attempt discontinuation of medicine, compared with 276 of 380 patients

(73%) with 10 or fewer seizures. When patients discontinued AED treatment, 232 of 331 patients overall (70%) remained seizure free. For each pretreatment seizure number greater than one, the number of patients successfully discontinuing medication was the same. Of those treated after a single seizure, 57% were seizure free after AED discontinuation, compared to 72% with more than one pretreatment seizure. Patients with more than 10 pretreatment seizures were more likely to have complex partial seizures (59%) than those with 10 or fewer seizures (16%). (Camfield C, Camfield P et al. Does the number of seizures before treatment influence ease of control or remission of childhood epilepsy? Not if the number is 10 or less. Neurology January 1996;46:41-44). (Reprints: Drs Camfield, IWK Children's Hospital, Box 3070, Halifax, Nova Scotia, B3J 3G9, Canada).

COMMENT. These findings tend to disprove the theory that seizures beget seizures, at least in children permitted to have 10 or fewer seizures before treatment with AEDs is begun. The ease of seizure control and frequency of remission are unaltered if medication is delayed for up to 9 recurrences. Children excluded from this study were those with myoclonus, absence, akinetic, and infantile myoclonic seizures, which are too numerous to count. The introduction of antiepileptic treatment after a first or second seizure in children with generalized tonic-clonic or partial seizures requires further evaluation. Each patient must be considered as an individual, and these findings should be weighed in conjunction with past practices when considering advisability of antiepileptic treatment. Some previous studies have found that risk factors for seizure relapse after withdrawal of antiepileptic treatment have included delay in initiation of therapy. See Progress in Pediatric Neurology I, PNB Publishers, 1991, pp100-104.

#### AED WITHDRAWAL IN CHILDREN WITH CEREBRAL PALSY

The safety of antiepileptic drug (AED) withdrawal in 65 children with cerebral palsy (CP) who had been seizure-free for at least 2 years was investigated in the Neurology Department, Texas Scottish Rite Hospital for Children, Dallas. Seizure relapses occurred in 27 patients (41%). Those with spastic hemiparesis had the highest relapse rate (61%) and spastic diplegia was associated with the lowest rate (14%). Mental subnormality, epileptiform EEG abnormality, type of CT abnormality, family history of epilepsy, mono or polytherapy, and gender were not correlated with risk of seizure relapse. (Delgado MR et al. Discontinuation of antiepileptic drug treatment after two seizure-free years in children with cerebral palsy. Pediatrics February 1996;97:192-197). (Reprints: Dr MR Delgado, Texas Scottish Rite Hospital for Children, 2222 Welborn St, Dallas, TX 75219).

COMMENT. Despite abnormal neurologic examinations, almost two thirds of these CP patients remained free from seizures for periods of at least 2 years after AED withdrawal. Patients with spastic hemiparesis have the highest relapse rate, and drug withdrawal should be discouraged or attempted only with great caution.

#### SPECT AND EEG IN LANDAU-KLEFFNER SYNDROME

Five right-handed children with Landau-Kleffner syndrome (LKS) were studied with EEG and single-photon emission computed tomography (SPECT) before and after 6 months of corticosteroid therapy at the Universities of Estadual de Campinas and Sao Paulo, Brasil. EEGs showed both focal and