

et al (Pediatrics 1982;70:338) have alluded to the effect of CNS infections on the intelligence of children with myelomeningocele, and the occurrence of seizures is a further complication of surgery. Delay in operative closure of the spina bifida may reduce the severity of hydrocephalus and lessen the need for shunting with its attendant risks (see Ped Neur Briefs 1988;2:52).

MATERNAL EPILEPSY AND CHILD'S IQ.

The intelligence of 116 children of epileptic mothers enrolled in a prospective study during pregnancy was compared with that of 104 control children at the Univ of Helsinki and Children's Castle Hospital, Helsinki, Finland. The prevalence of mental deficiency was 1.4% in the study group and zero in controls. Mean IQ's at 51/2 yr examinations were significantly lower in the study group compared to controls but showed no relation to exposure to antiepileptic drugs or to brief maternal convulsions. Among phenytoin-exposed children, 1 of 103 (1%) was mentally retarded and 1 had borderline IQ, short stature, microcephaly, and 8 minor anomalies. Multiple minor anomalies were associated with a lower mean IQ in both study and control groups. Hypertelorism and digital hypoplasia, typical of the fetal hydantoin syndrome, did not predict a poor intellect. (Gaily E et al. Intelligence of children of epileptic mothers. J Pediat Oct 1988;113:677-684).

COMMENT. This study shows a slight increase in prevalence of mental deficiency among children of epileptic mothers compared with the general population. Exposure to nontoxic levels of phenytoin as monotherapy or in combination with one other antiepileptic drug did not impair IQ. These results are contrary to those of Hanson et al (J Pediat 1976;89:662) who found that intrauterine exposure to phenytoin was a major risk factor for mental subnormality in affected children).

PHENOBARBITAL AND VALPROATE FOR FEBRILE CONVULSIONS

Data from 6 British trials of phenobarbital and 4 trials of valproate for the prophylactic treatment of febrile convulsions were polled and analyzed on an intention to treat basis at the Dept of Neurology, Royal Manchester and Booth Hall Children's Hospitals, Manchester. The risk of recurrence in the treatment groups compared to controls expressed as an overall odds ratio was as follows: for phenobarbital, 66 of 296(22%) of treated children had recurrence compared to 58 of 236(25%) of controls (overall odds ratio or relative risk of 0.8, nonsignificant difference); for valproate, 49 of 145(34%) treated children had recurrence compared with 36 of 136(25%) controls (overall odds ratio of 1.42, nonsignificant result). The follow-up period ranged from 6 months to a mean of 30 months. An odds ratio of less than 1 suggests benefit; greater than 1 suggests no benefit from treatment. (Newton RW. Randomized controlled trials of phenobarbitone and valproate in febrile convulsions. Arch Dis Child Oct 1988;63:1189-91).

COMMENT. Pooled analysis of the British trials data failed to show any overall value in the prophylactic treatment of febrile convulsions with either phenobarbital or valproate. With side-effects reported in up to 40% of the treated group, continuous anticonvulsant therapy in the prophylaxis of simple febrile convulsions cannot be recommended. The same conclusion was reached in comparing the relative value of phenobarbital administered intermittently, at the time of fever, or continuously in a group of 40 patients (Millichap JG. Febrile Convulsions. McMillan, NY, 1967). Long-term phenobarbital was recommended only in children with complex febrile convulsions (those whose seizures are prolonged 20 min, complicated by EEG seizure discharges, or having neurological abnormalities). Alternative methods of treatment such as rectal diazepam are advised in those at risk of recurrence, and parents must be counselled in the first aid management of seizures.

PROGNOSIS OF PARTIAL EPILEPSY

Children with onset of partial seizures from 10 mos to 13 yrs (average 4.9 yrs) were followed for an average period of 7.4 yrs at the Istituto di Neuropsichiatria, Rome, Italy. Of a total of 261 consecutive patients (136 male and 125 female) 89 had simple partial seizures, 109 had complex symptomatology, and 63 were partial with secondary generalization. Acquired etiological factors in 112 (43%) patients included cerebral birth injury in 62, head trauma in 31, and CNS infection in 19. Seizure outcome at 5 yr follow-up was favorable in 214 (82%); 153 patients had been seizure free for 2 yrs and 61 showed improved seizure frequency. Factors predictive of seizure control and a good prognosis were as follows: 1) a positive family history for epilepsy, 2) absence of acquired etiologies, 3) no antecedent generalized seizures, 4) normal EEG background activity, and 5) absence of mental retardation, neurological abnormalities or behavior disorders. An unfavorable seizure outcome correlated with 1) early onset of partial seizures, and 2) generalized seizures predating partial seizure onset. Factors of no prognostic value were 1) febrile convulsions preceding partial seizure onset, 2) normal initial EEG, and 3) cognitive and behavioral disorders. (Porro G et al. Arch Dis Child Oct 1988;63:1192-97).

COMMENT. Positron emission tomography (PET) has been employed to determine metabolic patterns in 48 patients with complex partial seizures. Patients with frontal hypometabolism had shorter and milder seizures and those with multilobar hypometabolism had prolonged seizures. An aura correlated with temporal hypometabolism (Holmes MD et al. Arch Neurol Nov 1988;45:1191). SPECT (single photon emission computed tomography) in 14 children with seizure disorders was useful in localization and prognosis. In patients with radiological lesions, SPECT showed more