

leptic drugs (Trimble MR); the EEG in assessing cognitive function (Stores G); and the effects of discontinuation of antiepileptic drugs on cognition (Blennow G et al). Community based studies in the United Kingdom have shown that up to 30% of children with epilepsy underachieved in school and many are referred for special education.

#### COGNITIVE EFFECTS OF CARBAMAZEPINE AND PHENYTOIN: REANALYSIS

A previous report from the University of Washington School of Medicine, Seattle, WA that carbamazepine had fewer adverse neuropsychological effects than phenytoin has been re-evaluated. When patients with disproportionately high phenytoin levels were excluded, the neuropsychological differences originally reported could not be demonstrated by statistical analysis. (Dodrill CB, Troupin AS. Neuropsychological effects of carbamazepine and phenytoin: A reanalysis. Neurology Jan 1991; 41:141-143).

COMMENT. Two additional studies have found no definite adverse cognitive effects that could be related to phenytoin (Meador KJ et al. Neurology 1990; 40:391-394; Dodrill CB, Temkin NR. Epilepsia 1989; 30:453-457). The authors comment that many studies reporting adverse cognitive effects of phenytoin use computerized tests heavily loaded with motor speed. When the motor speed element is factored out, the cognitive effects also disappear.

Cognitive function in relation to time-of-day variation in serum carbamazepine concentration in epileptic patients is reported from the Neuropsychology Laboratory, Department of Psychosomatic and Behavioral Medicine, Rikshospitalet, Oslo, Norway (Reinvang I et al. Epilepsia Jan/Feb 1991; 32:116-121). Patients had been seizure-free for at least one month and took 2 daily CBZ doses. The test battery showed no differences between performance at times of high versus low serum concentrations. A 33% fluctuation in CBZ concentrations during the day was significant. The subjects were mainly adults and different results might be obtained in children.

#### CARBAMAZEPINE RASH AND PREDNISONE

The use of prednisone in the treatment of carbamazepine-induced rash in 20 patients is reported from the Divisions of Neurology and Allergy and Immunology, Danbury Hospital, Danbury, CT. Fifteen were female and 5 were male. Their ages ranged from 4½ to 73. In 16 patients the rash was suppressed and carbamazepine was continued; the drug had to be discontinued in four patients, 2 of whom had developed fever. (Murphy JM et al. Suppression of carbamazepine-induced rash with prednisone. Neurology Jan 1991; 41:144-145).

COMMENT. Fifty cases of serious skin reaction related to carbamazepine have been reported to CIBA-GEIGY in an eight year period, 1982-89 (personal communication), with an estimated

incidence of 1 in 70-180,000 patients treated. Stevens-Johnson syndrome occurred in 30, erythema multiforme in 8, exfoliative dermatitis in 7, and toxic epidermal necrolysis (Lyell's syndrome) in 5. I recently treated a 12 year old girl who developed Stevens-Johnson syndrome after two weeks' treatment with carbamazepine which was substituted for valproate therapy found ineffective in the control of generalized tonic-clonic seizures. Despite immediate withdrawal of both anticonvulsant drugs within 6 hours of the appearance of the rash the patient developed fever and a generalized rash with extensive blistering which was not prevented by the early introduction of oral prednisone treatment. (Millichap JG. Unpublished case report). Seizures of an absence pattern with generalized atypical spike wave in the EEG developed when prednisone was withdrawn and both tonic-clonic and absence attacks have been completely controlled by clonazepam without adverse effects or skin rash recurrence. The value of steroids in the treatment of Stevens-Johnson syndrome is debated; most dermatologists advocate steroid use in early cases when caused by adverse drug reaction. The increased risk of superimposed infection might contraindicate the use of steroids in some cases.

#### TEMPORAL LOBECTOMY FOR COMPLEX PARTIAL SEIZURES

The outcome of 11 children who had undergone temporal lobectomy for the treatment of intractable complex partial seizures is reported from the Royal Children's Hospital, Melbourne, Australia. The average age at the time of surgery was 5 years 6 months (range, 1 to 9 years). The interval between onset of epilepsy and surgery averaged 3½ years. The cause of the epilepsy was mesial temporal sclerosis in 4, glioma in 5, dysplasia in 1, and chronic progressive encephalitis in 1. Four patients had had febrile convulsions lasting more than 15 minutes. Seven patients had behavior disorders preoperatively, including hyperactivity, rage reactions, and destructive aggressive tendencies. At 2 to 7 years follow-up after surgery eight patients were seizure-free, two had seizures reduced in frequency, and only one with encephalitis had not benefitted. Behavior was significantly improved in four of seven patients evaluated. Postoperative sequelae, including visual field defects and minor hemiparesis, occurred in four. (Hopkins IJ, Klug GL. Temporal lobectomy for the treatment of intractable complex partial seizures of temporal lobe origin in early childhood. Dev Med Child Neurol Jan 1991; 33:26-31).

COMMENT. These results are encouraging and should lead to more frequent referral of children with refractory epilepsies to our neurosurgical colleagues. The occurrence of febrile convulsions as antecedents of the complex partial seizures in 36% of this group of children invalidates reports that stress the benign nature of the febrile seizure and are opposed to prophylactic therapy.