

higher than in the general population but specific cognitive dysfunctions were uncovered in children of epileptic mothers.

#### PROLONGED POSTICTAL ENCEPHALOPATHY

Prolonged postictal confusion lasting from four to ten days is reported in 11 patients (ages 7½ to 40 years) from the Epilepsy Research Center, Department of Neurology, University of Minnesota and MINCEP Epilepsy Care, P.A., Minneapolis. Age of seizure onset averaged 10.7 years. The remote etiology was meningitis in 5, trauma 2, genetic 1, and birth anoxia 1. Mild to borderline mental retardation was present in nine and nine had nonspecific structural abnormalities on MRI or CT, including mild cortical atrophy and mild ventricular enlargement. Previous episodes of status epilepticus had occurred in ten. The encephalopathy always occurred after a cluster of seizures which were generalized tonic-clonic in eight, complex partial in two, and atypical absence in one. The patient with absence seizures, a girl aged 7½, would regress into what mother described as an "infantile stage" after each cluster of seizures lasting a period of a week. During this stage which persisted seven to ten days she would not be able to talk, sit, walk, feed herself, or even chew food placed in her mouth. She was awake and would respond very slowly. Repeated loads of diazepam, valproic acid, ethosuximide, and methsuximide did not result in any clinical or EEG improvement. Metabolic drug toxicity as well as ongoing nonconvulsive status was ruled out as the cause of the confusional state. (Biton V et al. Prolonged postictal encephalopathy. Neurology June 1990; 40:963-966).

COMMENT. This study demonstrates the adverse effects of repetitive seizures on the state of consciousness and mentation, particularly in patients who have previously experienced status epilepticus. The lack of response of this confusional state to anticonvulsant drugs is documented but the details of treatment and serum levels of anticonvulsant medications are not provided. This report suggests that patients who have a tendency to clusters of seizures, mild cerebral atrophy, a history of status epilepticus, and mild to borderline intellectual retardation, are particularly vulnerable to develop transient encephalopathy and are candidates for vigorous and regularly monitored anticonvulsant treatment.

#### SURGERY FOR PARTIAL EPILEPSY IN INFANCY

Focal resection of epileptic tissue was performed in five infants under one year of age with malignant partial seizures and deteriorating developmental status at Miami Children's Hospital and the Comprehensive Epilepsy Center, Miami, FL. Surgery was performed between two and 11 months of age. Pathology of resected specimens was as follows: Dysplastic gangliocytoma, hamartoma with tuberous sclerosis, gliosis and neuronal degeneration, and localized cortical gliosis. Remission of seizures was obtained in three of five infants and surgery did not result in significant neurologic deficit. (Duchowny MS et al. Focal resection for malignant partial seizures in infancy. Neurology June 1990; 40:980-984).

COMMENT. The authors conclude that excisional surgery can be performed safely in selected infants with medically uncontrolled malignant partial seizures and may improve long-term seizure outcome. They emphasize referral to a center specializing in early childhood epilepsy surgery. The same authors report at the 42nd Annual Meeting of the AAN that intractable focal seizures in childhood have a histopathological spectrum distinct from that of adults. Malformations, particularly neuronal migration disorders are most frequent in infants whereas hippocampal sclerosis, a common pathology in adult epileptics, did not occur in the infants or the children in this report. (Neurology April 1990; 40 (Suppl I):187).

#### ANTERIOR TEMPORAL LOBECTOMY IN REFRACTORY COMPLEX PARTIAL SEIZURES

The outcome of 22 patients with onset of complex partial seizures (CPS) in early childhood and treated by anterior temporal lobectomy after intervals varying from three to 28 years, is reported from the Epilepsy Research Center, Baylor College of Medicine, Houston, TX. All patients showed improved seizure control, the majority having a greater than 95% reduction in seizure frequency. Psychosocial, behavioral, and educational problems occurred more frequently in patients whose surgery was delayed until adult life. Neuropathologic abnormalities were found in both the mesial and lateral portions of the temporal lobe. Mesial abnormalities included the classical Ammon's horn sclerosis and ganglioglioma. All the brain specimens showed congenital malformations or "microdysgenesis". The authors considered surgery, performed soon after medical intractability has been determined, may limit the problems associated with prolonged uncontrolled seizures. (Mizrahi EM et al. Anterior temporal lobectomy and medically refractory temporal lobe epilepsy of childhood. Epilepsia May/June 1990; 31:301-312).

COMMENT. In these patients with seizure onset between two and ten years of age Ammon's horn sclerosis occurred in 16 of the 22 patients. This finding contrasted with the absence of hippocampal sclerosis in patients with seizures beginning in infancy. (See Duchowny et al. Neurology 1990; 40:980).

#### VALPROATE, CARNITINE, AND LIPID METABOLISM

The effects of valproate (VPA) on carnitine and lipid metabolism and on liver function were assessed in 213 outpatients from five centers and reported from the Instituto di Ricerche Farmacologiche "Mario Negri," Milan, Italy. The mean total and free carnitine levels were significantly lower in patients on polytherapy. A significant correlation was found between serum ammonia levels and VPA dosage. VPA monotherapy and polytherapy were associated with significantly elevated cholesterol levels, especially "HDL". The authors concluded that impairment of carnitine metabolism and liver function by VPA does not appear to be a clinically important phenomenon especially when VPA is administered as monotherapy to well nourished patients. There was no correlation between carnitine deficiency and reports of