

utero infection, and anoxia; b) prevention of febrile convulsions and their complications; c) avoidance of head trauma by wearing helmets when bicycling and banning of boxing as high school sport; 2. *ictogenesis*, individual epileptic seizures, may be prevented by identifying and controlling precipitating or provocative factors such as drugs and alcohol, sleep deprivation, AED withdrawal or poor compliance, and photic stimulation; 3) *neurologic consequences* can be prevented by early and optimal treatment of seizures and avoidance of status epilepticus; 4) *psychosocial consequences* could be lessened by public education, removal of stigmata, and improvement in the quality of life; and 5) *treatment consequences* involving anticonvulsant side-effects, teratogenicity, and cognitive and other deficits resulting from overzealous surgical resections. (Dreifuss FE. Prevention as it pertains to epilepsy. Arch Neurol April 1995;52:363-366). (Reprints: Dr Dreifuss, Department of Neurology, School of Medicine, University of Virginia, Charlottesville, VA 22908).

COMMENT. Prevention in the management of epilepsy has been sadly neglected, and Dr Dreifuss in his synopsis draws attention to many adverse factors and aspects of etiology and treatment that could be avoided or corrected when addressed appropriately. Additional problems, especially important to the adolescent and young adult, include the permission to drive an automobile and the risk of accidents. Young drivers account for one half those with seizures at the wheel, and a complex partial seizure, usually without aura, is the most common pattern associated with accidents. Those with auras are significantly less likely to lead to accidents. Males, 19 to 30 years, in higher socioeconomic classes, form the majority continuing to drive without adequate seizure control. The monitoring of young male drivers with complex partial seizures should be close and frequent, including serum drug levels to check compliance and adequate AED dosage. (Ped Neur Briefs Oct 1987; see Progress in Pediatric Neurology I, 1991, p129-131).

The stress and anxieties associated with the first year away at college are additional reasons for relapse and recurrence of seizures in the young adult. Seizures may be prevented by counselling and by modification of medications to cover this period.

The need for further training of physicians in preventive measures is stressed in the following article from Wales regarding the management of status epilepticus in hospitalized patients.

## MANAGEMENT OF STATUS EPILEPTICUS

The care given to 8 children with epilepsy admitted with convulsive status epilepticus during 1990 is evaluated at the University Hospital of Wales, Cardiff. All had significant learning disabilities. In 17 admissions, eye-witness accounts of the seizure leading to admission were not recorded in 5, and were poorly described in 11. Of 9 convulsive episodes persisting on admission, 6 had been treated with rectal diazepam in the home. All children were on maintenance therapy for previously diagnosed epilepsy, but only one was recorded as compliant. AED dosage was adjusted after 8 of the episodes, less than half the total. Prevention of further episodes after discharge was not considered in 8 cases. The availability of rectal diazepam in the home was ignored for most admissions, and parents had not been instructed in its optimal usage. Average length of stay was 2 days. (Matthes JWA, Wallace SJ. Convulsive status epilepticus in children treated for epilepsy: an assessment of

management. Dev Med Child Neurol 1995;37:226-231). (Respond: Dr SJ Wallace, Department of Child Health, University Hospital of Wales, Heath Park, Cardiff CF4 4XW, Wales, UK).

COMMENT. The importance of epilepsy prevention is stressed both in the US and UK current literature. The release of excitotoxic amino acids such as glutamate and aspartate from discharging neurons, with further cerebral damage as a consequence of uncontrolled seizures is cited as a reason for optimal control. Neurological, psychological and social dysfunction resulting from poorly controlled epilepsy are additional reasons for closer attention to the prevention of seizures and their consequences. The failure of rectal diazepam administered in the home in 6 patients admitted in status epilepticus might be explained by the inadequate instruction or compliance of parents.

## OUTCOME OF STATUS EPILEPTICUS

Treatment practice and outcome of generalized convulsive status epilepticus (GC-SE) in The Netherlands were studied at the Dr Hans Berger Clinic, Breda and University Hospital, Nijmegen, The Netherlands. SIG, a Dutch documentation center that collects nationwide hospital statistics, showed an average annual GC-SE frequency of 344 in patients aged >15 years, with an annual mortality of 24. Of 346 admissions collected at 12 hospitals and 2 epilepsy centers 236 (68%) had known previous epilepsy. Analysis showed that factors important in outcome were the underlying cause, noncompliance with AED treatment, and systemic infection. Of 38 patients who died, 44% had received insufficient therapy. This percentage was higher (62%) in patients dying as a result of SE itself. Duration of SE >4 hours caused an increase in morbidity and mortality, especially in those where GC-SE itself was responsible rather than some underlying cause. Outcome was related to the occurrence of medical complications: respiratory insufficiency and aspiration, cardiac arrhythmias, hypotension, renal and/or hepatic failure, and rhabdomyolysis were associated with a poor prognosis. Inadequate management led to several complications and a worse outcome. (Scholtes FB, Renier WO, Meinardi H. Generalized convulsive status epilepticus: causes, therapy, and outcome in 346 patients. Epilepsia 1995;35:1104-1112). (Reprints: Dr FB Scholtes, Dr Hans Berger Clinic, PO Box 90108, 4800 RA Breda, The Netherlands).

COMMENT. A poor outcome of convulsive status epilepticus is determined particularly by the underlying cause but also by a duration of SE greater than 4 hours, by the occurrence of one or more medical complications, and by inadequate anticonvulsant therapy. Therapies most frequently employed in the management of convulsive status epilepticus in The Netherlands were clonazepam, diazepam, and phenytoin.

Status Epilepticus and Seizure Recurrence. Shinnar S, Berg AT, and Moshe SL, at the Albert Einstein College of Medicine, Bronx, NY, report a study of the effect of status epilepticus on the long-term outcome of a cohort of 342 children and adolescents prospectively followed for a mean of 72 months from the time of their first idiopathic unprovoked seizure (Dev Med Child Neurol March 1995 (suppl 72);37:116 [abstract]). Status epilepticus was the first seizure in 38 (11%). At follow-up, 127 (37%) had experienced a seizure recurrence, including 42% of