

children and adolescent age groups. Males predominated and mental retardation and cerebral palsy were the most frequently associated conditions.

VARIABILITY OF SEIZURE CLASSIFICATION

One senior neurologist (JBB) from the Department of Neurology and Pediatrics, West Virginia University, Morgantown, W.Va., USA, and three neurology residents from the University of Oklahoma, Harvard University, and W.Va. University reviewed descriptions of seizures transcribed from medical records and classified them according to the International League Against Epilepsy (ILAE) Classification system, 1981. The overall agreement in classifying seizure types by the ILAE system was relatively poor and only slightly better than would have been expected by chance. Agreement was particularly weak for atypical absence, partial seizures with secondary generalization, and generalized motor seizures. It was better for simple and complex partial, simple absence and infantile spasms. Approximately 22% of descriptions were insufficient for classification by the ILAE system. The authors conclude that the development and testing of more explicit criteria for the diagnosis of specific seizure types may be especially useful in improving the reliability of seizure classification. (Bodensteiner JB et al. Interobserver variability in the ILAE classification of seizures in childhood. Epilepsia March/April 1988; 29: 123-128).

COMMENT. A classification of seizure types is of little value without assessment of its reproducibility in practice. Surprisingly, this study appears to be the first test of the reliability of the ILAE system of seizure classification, first proposed in 1970 and generally employed in statistical trials of anticonvulsant drugs. The relatively low level of concordance among observers using the ILAE system in the present study is disturbing, and the substitution of a more specific seizure classification should be entertained especially in therapeutic trials.

PSYCHOLOGICAL TREATMENT OF EPILEPSY

Three children, ages 12-15, with frequent refractory seizures were treated by behavioral intervention techniques in the Depts of Medical Rehabilitation and Clinical Neurophysiology, Orebro Medical Center Hospital, Orebro, and Dept of Clinical Psychology, University of Uppsala, Sweden. Seizure types described as myoclonic in pt 1, Jacksonian (pt 2), and minor motor (pt 3) were associated with mental deterioration. Behavioral countermeasures, consisting of tensing of muscle groups and screaming "stop"! (pt 1), massaging the affected limb (pt 2), and fixing eye movements on an object (pt 3), resulted in an immediate reduction in both the seizures and paroxysmal EEG activity in all three cases. Other behavioral strategies, including biofeedback training in awareness of early seizure signals, applied relaxation, and positive reinforcement, were without beneficial effect. The authors propose that countermeasures in the level and speed of arousal may be the mechanism of the treatment intervention. (Dahl J, Melin L, Leissner P. Effects of behavioral intervention on epileptic seizure behavior and paroxysmal activity: a systematic replication of three cases of children with intractable epilepsy. Epilepsia March/April 1988; 29: 172-183).

COMMENT. Countermeasures involving sensory stimulation for the treatment of Jacksonian seizures have been advocated for centuries, dating back to the time of Galen and Aretaeus. Brown-Séquard (1872) proposed an encircling blister and Gowers (1901) found that forcing the closed fingers to open or preventing a leg from flexing would break up a motor march (quoted in Lennox WG. Epilepsy and Related Disorders Vol 1, 1960, Little, Brown & Co, Boston). The value of these methods in the treatment of other seizure types should be explored further.

BEHAVIORAL COMPLICATIONS OF FRONTAL LOBE SEIZURES

A 13-yr-old girl with marked behavioral and selective cognitive deficits associated with partial complex seizures of frontal lobe origin is reported from the Depts of Neurology, Psychiatry and Pediatrics, Harbor-UCLA Medical Center, 1000 W Carson St, Torrance, CA. Behavioral deterioration consisting of inattention, sexual disinhibition, loss of concern for personal hygiene, physical and verbal aggression and periodic incoherent and bizarre speech, was concurrent with a 6-week history of seizures manifested by turning to the right, staring, picking at her clothes, shaking and urinary incontinence. An EEG showed periodic bursts of 2½ Hz spike and slow wave complexes originating in the left frontal lobe. CT and MRI of the brain were normal. Neuropsychological testing for frontal lobe dysfunction (finger tapping, digit span, trailmaking, WISC-R mazes, Stroop test) demonstrated deficits in attention, response inhibition, alteration between tasks, maze solving, word generation and motor functioning. Overall intelligence, basic language skills, visual perception, constructional ability and remote memory were spared. Seizures were controlled, the EEG became normal, and the cognitive and behavioral deficits disappeared within one month after treatment with carbamazepine. On re-examination, the patient was composed, quiet and well groomed, and the content of her speech was appropriate, including memory and expression of shame regarding her behavior during preceding months. (Boone KB et al. Neuropsychological and behavioral abnormalities in an adolescent with frontal lobe seizures. Neurology April 1988; 38: 583-586).

COMMENT. This case-report suggests that frontal lobe seizures and interictal dysfunction may be associated with acute psychiatric disturbance in children. Whereas this patient exhibited remarkable reversible behavioral and cognitive defects without an underlying structural cerebral lesion, in some adults with destructive and selective frontal lobe pathology neuropsychological testing has failed to demonstrate behavioral deficits. It is possible that the seizure activity in the present case may have spread to involve areas in addition to the frontal lobe.

SEIZURES DURING EXERCISE

Three children with epileptic seizures occurring during exercise are reported from the Section of Electroencephalography and Pediatric Neurology, Mayo Clinic, Rochester, MN. Epileptiform paroxysms were noted with exercise but not with hyperventilation during EEG recordings in these patients. The pathophysiologic mechanism was unclear. (Ogunyemi AO et