

and valproic acid may have contributed to the movement disorder. In case 2, receiving phenytoin, a gabapentin rechallenge caused recurrence of choreoathetosis in 7 days but to a lesser degree; the reduced severity of movements was related to a reduction in dosage of phenytoin. (Chudnow RS, Dewey RB Jr, Lawson CR. Choreoathetosis as a side effect of gabapentin therapy in severely neurologically impaired patients. Arch Neurol July 1997;54:910-912). (Respond: Robert S Chudnow MD, Department of Neurology, University of Texas Southwestern Medical Center, 1935 Motor St, Dallas, TX 75235).

COMMENT. The risk of gabapentin-associated choreoathetosis in this institution was 2 of 28 patients treated (7.1%). The risk appears to be related to polytherapy and high serum levels of other anticonvulsants, VPA and phenytoin, also known to cause choreoathetosis. Neurological impairments and intractable epilepsy with brain damage are likely contributing factors. A previous report of choreoathetosis with gabapentin in a severely mentally retarded adult is reviewed in Progress in Pediatric Neurology III, 1997, p157.

### **ANEMIA ASSOCIATED WITH LAMOTRIGINE**

Two cases of anemia associated with lamotrigine adjunctive therapy for intractable epilepsy, one a 17-year-old with Lennox-Gastaut syndrome, are reported from Texas Tech University, Lubbock, TX. One patient had a previous history of iron deficiency anemia. The lowest Hct and Hgb levels, recorded after 2 months of treatment with lamotrigine, in combination with valproic acid, were Hct 32.7 and 18.9% and Hgb 9.9 and 7 g/dl. An associated increase in platelets to 427 and 446 K/mcl represented a reactive thrombocytosis. Neither case required intensive medical management, and the anemia resolved rapidly when the lamotrigine was discontinued. (Esfahani FE, Dasheiff RM. Anemia associated with lamotrigine. Neurology July 1997;49:306-307). (Reprints: Dr Richard M Dasheiff, Texas Tech University Health Sciences Center, Division of Neurology, 3601 4th St, Lubbock, TX 79430).

COMMENT. The authors cite 3 previous case reports of hematological side effects with lamotrigine, all associated with polytherapy, including valproic acid or carbamazepine, drugs known to cause anemia or leukopenia. CBC monitoring may be advisable when introducing lamotrigine, particularly in patients receiving valproic acid or carbamazepine in combination.

### **SEIZURE DISORDERS**

#### **POST-SURGICAL OUTCOME OF INFANTILE SPASMS**

Two-year postsurgical developmental outcome was assessed in 24 children with infantile spasms treated at the University of California, Los Angeles. All were symptomatic cases with neurological deficits and had received ACTH and multiple medications without benefit before the cortical resections. Seizures began at a mean age of 12 weeks and surgery was at 20 months of age. The developmental levels assessed by the Vineland Adaptive Behavior Scales were significantly increased at 2 years post surgery compared to presurgical levels, and only one child was severely retarded. The outcomes in this UCLA surgical series were equal to and sometimes superior to other symptomatic series receiving only medical treatment. Those who received surgery at an early age had the better presurgical developmental levels and the best 2-year postsurgery outcomes. (Asarnow RF, LoPresti C, Guthrie D et al.

Developmental outcomes in children receiving resection surgery for medically intractable infantile spasms. Dev Med Child Neurol July 1997;39:430-440). (Respond: Dr Robert F Asarnow PhD, Department of Psychiatry and Behavioral Sciences, UCLA School of Medicine, 48-240C,NP1, 760 Westwood Plaza, Los Angeles, CA 90024).

COMMENT. Developmental outcome in children undergoing cortical resection for infantile spasms is correlated with presurgical developmental levels and the time exposed to uncontrolled seizures. The earlier the surgery, the shorter the exposure to adverse effects of seizures on cognitive functioning. Candidates for surgery have focal or lateralized pathology, a factor that might contribute to the better than average developmental outcomes in the above series. Nonetheless, resective surgery appears to result in improved outcomes for children with ACTH-refractory infantile spasms.

### RISK OF STATUS EPILEPTICUS IN SYMPTOMATIC EPILEPSY

Risk factors for status epilepticus (SE) in 44 children with a diagnosis of symptomatic epilepsy were examined in a retrospective case-controlled (88 children with symptomatic epilepsy without SE) study at the Schneider Children's Hospital, New York. Independent predictors of risk of SE were:1) focal EEG background abnormalities, 2) partial seizures with secondary generalization, 3) SE as first seizure, and 4) MRI generalized abnormalities. (Novak G, Maytal J, Alshansky A, Ascher C. Risk factors for status epilepticus in children with symptomatic epilepsy. Neurology Aug 1997;49:533-537). (Reprints: Dr Gerald Novak, Rm 267, Division of Neurology, Schneider Children's Hospital, New Hyde Park, NY 11040).

COMMENT. Patients with symptomatic seizures of a partial secondarily generalized type and associated with EEG focal background abnormalities and generalized MRI pathology are at increased risk for status epilepticus and should be treated aggressively with long term preventive antiepileptic medication. In a previous study at the Montefiore Medical Center, Bronx, NY, Maytal J and associates found the risk of unprovoked seizures following status epilepticus was 30%. For a review of status epilepticus, causes and management, see Progress in Pediatric Neurology 1, 1991, pp 97-99; VOL II, 1994, pp 85-91; and VOL III, 1997, pp 100-105.

**Rectal diazepam seizure prophylaxis.** The introduction of the long awaited rectal diazepam for use in the US, as **Diastat® gel**, should permit prompt administration by parents in selected patients with refractory symptomatic seizures and recurrent febrile seizures, so that SE may be avoided without chronic administration of toxic levels of anticonvulsant drugs. Rectal diazepam in suppository form has been available in the UK for more than a decade (Ped Neur Briefs Jan 1988;2:7) and is also prescribed in Japan. In a recent study of 50 children at Kenwakai Hospital, Iida, Nagano, Japan, Wada H and Hattori Y found that transient side effects of diazepam prophylaxis of febrile seizures occurred in 34 and triggered parental anxiety in 15 (30%) of mothers interviewed. Side effects included sedation, ataxia and excitation, and occurred with dose levels of 0.4 mg/kg (< 4 years of age) or 0.35 mg/kg (> 4 years) given twice at 8 hr intervals. (Brain Dev July 1997;19:374). Rectal diazepam seizure prophylaxis was safe and effective, but parental anxiety regarding transient side effects should be allayed by adequate educational counselling.