left-handedness: Correlates of early left hemisphere injury. Arch Neurol 1986; 43:333-337).

SEIZURE DISORDERS

PHENYTOIN FOR POST-TRAUMATIC SEIZURES

A randomized, double-blind study of phenytoin was conducted in 404 patients with serious head trauma at the Departments of Neurological Surgery, Rehabilitation Medicine and Medicine, University of Washington, Seattle. An intravenous loading dose of phenytoin was given within 24 hours of injury to 208 patients and 196 received placebo for a one year period in a double-blind fashion. Serum levels were maintained in the high therapeutic range (3-6 mcmol/l). Statistical analyses were performed according to the intention to treat and based on efficacy. Between the initial drug loading dose and day seven, 3.6% of patients assigned to phenytoin had seizures compared to 14% of patients assigned to placebo ($P<0.001$). From day eight to the end of year one and the end of year two of the study, there was no significant difference between the seizure incidence in the phenytoin and placebo groups, approximately 1 in 5 having a recurrence. The relapse was not explained by low phenytoin levels. (Temkin NR et al. A randomized, double-blind study of phenytoin for the prevention of post-traumatic seizures. N Engl J Med August 23, 1990; 323:497-502).

> COMMENT. The authors concluded that phenytoin exerts a beneficial effect by reducing posttraumatic seizures only during the first week after severe head injury. Dr. Allen Hauser, in an editorial comment, states that early administration of loading doses of IV phenytoin to patients with severe head injury may be warranted to prevent early seizures and their complications, but prolonged therapy after stabilization does not seem justified. Other anticonvulsants such as phenobarbital and benzodiazepines should be considered as alternatives, and treatment with antioxidants which reduce edema and prevent neuronal damage caused by iron salts deposited at the time of injury may be of benefit.

FETAL ANTICONVULSANT SYNDROME WITH NEOCEREBELLAR HYPOPLASIA

An infant with dysmorphic features and hypoplasia of the cerebral hemispheres and cerebellum is reported from the John Radcliffe Hospital, Oxford, England as an extreme example of anticonvulsant teratogenicity. The mother was epileptic and she had taken phenytoin and sodium valproate throughout pregnancy. The infant was cyanosed and hypotonic at birth with Apgar scores of 4 at one minute and 6 at five minutes. She had abnormalities of the toes, fingers, nails, elbows, hips, ears, and an antimongoloid slant to the eyes with hypertelorism. Intractable seizures began ten minutes after delivery and she died at 66 hours of age. Postmortem neuropathological examination showed a thickened skull, reduced size of the pons and neocerebellum and