

School of Medicine, Winston-Salem, NC showed that both performed equally well in clinical efficacy and bioequivalency. (Oles KS et al. Neurology June 1992; 42:1147-1153.)

VALPROATE METABOLITES AND HYPERAMMONEMIA

The association between valproate metabolism (VPA) and VPA induced hyperammonemia was studied at Hirosaki University Hospital, Japan. In 53 monopharmacy patients, plasma NH₃ levels did not depend on age, VPA dosage or serum levels and showed a negative correlation with the 4-en metabolite of VPA. In polypharmacy patients, plasma NH₃ levels were significantly higher, while 2-en VPA serum level and bilirubin were lower than in monopharmacy patients. (Kondo T et al. Is 2-propyl-4-pentonoic acid (4-en), a hepatotoxic metabolite of valproate, responsible for valproate-induced hyperammonemia? Epilepsia May/June 1992; 33:550-554.) (Reprints: Dr. S. Kaneko at Department of Neuropsychiatry, Hirosaki 036, Japan.)

COMMENT. This study indicates that young age and high VPA serum levels are not risk factors for hyperammonemia induced by VPA and 4-en metabolite is not causally related to this adverse effect. These authors had previously reported that young age, polypharmacy, and high VPA serum level enhance the susceptibility to VPA hepatotoxicity by altering the metabolism of VPA and by increasing the conversion of VPA to 4-en, the most toxic VPA metabolite (see Ped Neur Briefs March 1992, 6:21).

In 43 children with epilepsy who were treated with VPA monotherapy or polytherapy, serum levels of copper were significantly lower than in normal control patients, whereas serum zinc levels were not altered. (Kaji M et al. Epilepsia May/June 1992; 33:555-557.)

Valproate and carbamazepine, and in a lesser frequency, phenytoin and phenobarbital, were the most common causes of red blood cell macrocytosis in children in a study from the Children's Medical Center, Dallas, TX (Pappo AS et al. Pediatrics June 1992; 89:1063-1067). Macrocytosis and pancytopenia may be the first manifestation of bone marrow failure and aplastic anemia. An MCV of more than 90 fL in a patient taking antiepileptic medications deserves careful monitoring.

CEREBROVASCULAR DISEASE

IDIOPATHIC STROKE

Of 4 children with idiopathic stroke syndrome examined at the Department of Neurosciences and Pediatrics, UMD-New Jersey Medical School and the University of Rochester Medical Center, all 4 were heterozygous for human leukocyte antigen (HLA-B51). Control samples from 3 patients with non-idiopathic stroke syndrome failed to reveal the HAL-B51 marker. (Mintz M, Epstein LG, Koenigsberger MR. Idiopathic childhood