COMMENT. Infantile spasms may be associated with focal temporal lobe hypoperfusion on SPECT despite normal MRI.

PET studies of infantile spasms have also shown focal abnormalities when MRI was normal. (Chugani HT et al. In: Progress in Pediatric Neurology Vol II, 1994, p35).

ANTIEPILEPTIC DRUGS

VALPROATE-ASSOCIATED HEPATOTOXICITY UPDATE

Eight new fatalities from valproate (VPA)-related hepatotoxicity, 6 reversible cases, and a review of 132 fatal cases Worldwide are reported from various Universities in Germany. In fatal cases, 65% were developmentally delayed, 75% were taking additional AEDs, and 65% were >2 years old. Early symptoms were nausea, vomiting, apathy, coma, exacerbation of seizures, and febrile infections. Two thirds of fatalities occurred within 6 months of introducing VPA. In reversible cases, VPA had been withdrawn promptly. In addition to Alper's disease, a variety of underlying metabolic defects, especially acyl CoA-dehydrogenase deficiency, has been recognized in some cases of VPA-related hepatotoxicity. (Konig St A, Scheffner D et al. Severe hepatotoxicity during valproate therapy: an update and report of eight new fatalities. Epilepsia Sept/Oct 1994;35:1005-1015). (Reprints: Dr S A Konig, Universitats Kinderklinik, Theodor-Kutzer-Ufer, D-68167 Mannheim, Germany).

COMMENT. Metabolic testing is indicated in children <2 years old with developmental abnormalities when considering VPA therapy. Those patients with recognized metabolic disorders should not receive VPA. Further, VPA should be discontinued promptly and alternative AEDs substituted at the earliest sign of liver failure, if seizures are suddenly exacerbated, and particularly with status epilepticus and febrile infections.

IV PHENYTOIN AND SOFT TISSUE REACTION IN A NEONATE

A blue discoloration in the hand following an iv infusion of phenytoin in a term baby with neonatal convulsions is reported from Basildon Hospital, Essex, UK. A dose of 10 mg/kg was inadvertently diluted with sterile water rather than the recommended saline. The phenytoin infusion via a cannula was aborted after 2 ml/10 min when an intense blue discoloration appeared round the iv site at the dorsum of the hand. Capillary return and radial pulse were normal. On removal of the cannula, blood oozed freely, and the discoloration spread to the rest of the hand. Improvement occurred after 20 hrs and a blister appeared at the iv site. The lesion resolved within one week. A second iv phenytoin, diluted in saline, and given via a cannula in the foot was aborted when a similar reaction occurred. No systemic side effects were noted. Two possible factors are postulated for the injury: 1) precipitation of phenytoin with alteration in pH on contact with blood or infusing fluid and direct vascular injury and vasospasm; or 2) infiltration of drug with tissue reaction from alkaline solution. (Sharief N, Goonasekera C. Soft tissue injury associated with intravenous phenytoin in a neonate. Acta Paediatr Nov 1994;83:1218-1219). (Respond: Dr N Sharief, Basildon General Hospital, Nether Mayne, Basildon, Essex SS16 5NL, UK).

COMMENT. The authors refer to similar reports in the literature occurring in adults but none in infants and children. This type of tissue

reaction to phenytoin in neonates appears to be a rare occurrence. Although slow iv injection of undiluted phenytoin parenteral solution (1-3 mg/kg/min) is recommended by some, most neonatologists and neurologists advocate dilution with normal saline prior to iv injection, infusion at a rate of no more than 0.75 mg/kg/min (Ramsay RE. Epilepsia 1993;34 (Suppl 1):S71), and followed by a normal saline flush. Avoidance of the hand and an in-line filter are additional precautions cited in the literature. Phenytoin should not be mixed in glucose solutions since the drug precipitates out in microcrystals.(Ramsay RE, 1993). Intramuscular injection of PHT should be avoided because of local discomfort, muscle necrosis, and slow and erratic absorption.

HEADACHE DISORDERS

HEMICRANIA CONTINUA

Ten new patients and 24 previous reports of hemicrania continua are reviewed from the Albert Einstein College of Medicine, and the Montefiore Medical Center, Bronx, NY. A 20-year-old man presented with an 8-year history of unilateral, right-sided headaches occurring in discrete bouts of continuous pain each lasting 6 months, approximately once yearly. The pain was constant and moderate in severity, with superimposed exacerbations of more severe pain, recurring two to three times daily, and associated with ipsilateral conjunctival injection, ptosis, lacrimation, and rhinorrhea. The patient would rock in a chair, pace, or hit his head against a wall in an effort to allay the pain. Treatments with carbamazepine, propanolol, verapamil, and lithium were of no benefit, whereas indomethacin 25 mg TID resulted in immediate and complete relief. Headaches recurred within 2 days on two occasions when treatment was discontinued during the 6-month pain cycle. Most patients were adults, but the onset was at 12 years of age in one and 18 years in one other. (Newman LC, Lipton RB, Solomon S. Hemicrania continua: Ten new cases and a review of the literature. Neurology Nov 1994;44:2111-2114). (Reprints: Dr Lawrence C Newman, Department of Neurology, Montefiore Medical Center, 111 East 210th Street, Bronx, NY 10467).

> COMMENT. Hemicrania continua (HC) is distinguished from cluster headache by the continuous, moderate background pain, and when present, the relatively mild autonomic features. The authors described three types of HC: 1) a remitting or noncontinuous form (15%); 2) an unremitting form evolved from the remitting form (32%); and 3) an unremitting form with continuous headache lasting for years (53%). The majority (85%) have typically continuous, unremitting attacks. The diagnosis is important because of the remarkable response to indomethacin.

SEASON'S GREETINGS
AND
A HEADACHE-FREE 1995