OXCARBAZEPINE ADJUNCTIVE THERAPY FOR PARTIAL SEIZURES

The safety and efficacy of oxcarbazepine (OXC) as adjunctive therapy for refractory partial seizures were evaluated in 267 patients in a multicenter (47 centers in 8 countries; Argentina, Chile, Uruguay, Australia, New Zealand, Canada, Israel, and the USA), randomized, placebo-controlled trial, and reported from the Children's Hospital, Cincinnati, OH. Children, aged 3 to 17 years, with inadequately controlled seizures and taking one or two concomitant antiepileptic drugs, received either OXC 6 to 51 mg/kg/day (median, 31 mg/kg/d) orally or a placebo, in a 112-day double-blind treatment phase.

The median percent reduction from baseline seizure frequency (56-day preliminary observation period) was 35% versus 9% for OXC and placebo groups, respectively (p=0.0001). The percent of patients with a >50% reduction in seizure frequency per 28 days was 41% for the OXC group and 22% with placebo (p=0.0005). Adverse events were reported in 91% and 82% of the OXC and placebo groups, respectively. A twofold or greater incidence of vomiting, somnolence, dizziness, and nausea occurred in children treated with OXC. Fourteen patients (10%) in the OXC group and 4 (3%) on placebo discontinued treatment prematurely due to adverse events. The OXC-related side effects necessitating drug withdrawal were nausea and vomiting in 5, and rash in 4. (Glauser TA, Nigro M, Sachdeo R et al. Adjunctive therapy with oxcarbazepine in children with partial seizures. Neurology June (2 of 2) 2000;54:2237-2244). (Reprints: Dr Tracy A Glauser, Children's Hospital Medical Center, Department of Neurology, OSB-5, 3333 Burnet Ave, Cincinnati, OH 45229).

COMMENT. Oxcarbazepine is considered effective as an adjunctive antiepileptic therapy in children with inadequately controlled partial seizures.

Oxcarbazepine monotherapy for partial-onset seizures was studied in a multicenter, double-blind trial in outpatients aged 12 years or older with inadequately controlled seizures. (Beydoun A, Sachdeo RC, Rosenfeld WE et al. Neurology June (2 of 2) 2000;54:2245-2251). Patients receiving a higher dosage (2400 mg/day) of OXC were benefited more than those on a lower dose (300 mg/day); 12% seizure-free compared to none, respectively.

SEIZURE DISORDERS

PYRIDOXINE-DEPENDENT EPILEPSY AND PIPECOLIC ACID

Two neonates with pyridoxine-dependent epilepsy and significant elevation of pipecolic acid in plasma and CSF are reported from the University Hospital Vienna, Austria. Diagnosis was based on an immediate control of seizures and clinical response with IV pyridoxine 100 to 300 mg, and continued control of seizures with a maintenance oral dose of 200 mg/day or 10 mg/kg/d. Further increases of CSF pipecolic acid occurred during a 72-hour withdrawal of pyridoxine in 1 patient. Pipecolic acid was continuously elevated in the plasma of the 2 infants with pyridoxine-dependent epilepsy (10 mcmol/L plasma), and was normal in 26 controls with non-pyridoxine-dependent seizures (2 mcmol/L). There was an inverse correlation of pyridoxalphosphate in plasma versus pipecolic acid levels. High pipecolic acid levels are suggested as a diagnostic marker of pyridoxine-dependent epilepsy. (Plecko B, Stockler-Ipsiroglu S, Paschke E et al. Pipecolic acid elevation in plasma and cerebrospinal fluid of two patients with pyridoxine-dependent epilepsy. Ann Neurol July 2000;48:121-125).