

were independent of seizure type. Cardiac abnormalities occurring in epilepsy with GTCS may potentially facilitate sudden cardiac death (SUDEP).

## **ETHOSUXIMIDE, VALPROIC ACID, AND LAMOTRIGINE IN CHILDHOOD ABSENCE EPILEPSY**

Efficacy, tolerability, and neuropsychological effects of ethosuximide, valproic acid, and lamotrigine in children with newly diagnosed childhood absence epilepsy were compared in a double-blind, randomized, controlled clinical trial performed at six centers in the US and organized as a Study Group. Drug doses were incrementally increased until freedom from seizures or highest tolerable dose was reached. Primary outcome was freedom from treatment failure after 16 weeks therapy, and secondary outcome was attentional dysfunction. In a total of 453 children, the freedom-from-failure rates after 16 weeks were similar for ethosuximide (53%) and valproic acid (58%), and higher than the rate for lamotrigine (29%) ( $P < 0.001$ ). Attentional dysfunction was more common with valproic acid (49%) than with ethosuximide (33%) ( $P = 0.03$ ). (Glaser TA, Cnaan A, Shinnar S, et al. Ethosuximide, valproic acid, and lamotrigine in childhood absence epilepsy. *N Engl J Med* March 4 2010;362:790-799). (Reprints: Dr Tracy A Glaser, Cincinnati Children's Hospital, 3333 Burnett Ave, MLC 2015, Cincinnati, OH 45229. E-mail: [tracy.glaser@cchmc.org](mailto:tracy.glaser@cchmc.org)).

COMMENT. "Older is better," is the conclusion of Vining EPG, in an editorial (*N Engl J Med* 2010;362:843-845). As generally accepted in US practice and confirmed by the above controlled trial, ethosuximide from the 1950s is the optimal initial therapy for childhood absence epilepsy without GTCS. Ethosuximide is equal to valproic acid in seizure control and superior in effects on attention. Attentioniveness was significantly poorer among children receiving valproic acid than in those taking ethosuximide or lamotrigine, an important factor in the choice of long-term therapy for epilepsy in children.

## **INEFFECTIVENESS OF ADJUNCTIVE TOPIRAMATE IN INFANTS WITH REFRACTORY PARTIAL SEIZURES**

A double-blind, placebo-controlled, international study of topiramate in 149 infants aged 1-24 months (mean age 12 months) with refractory partial-onset seizures is reported from Seattle Children's Hospital, WA. Topiramate 5, 15, or 25 mg/kg/d or placebo was given for 20 days, and the percentage reduction in daily seizure rate was recorded on a 48-hour video-EEG. Infants with at least 4 seizures in the 2 weeks before the first day of screening and at least 2 electroclinical seizures in the 48-hour baseline vEEG were eligible. The most frequently used AEDs at baseline were valproic acid (56%), phenobarbital (29%), and carbamazepine (17%). The median percentage reduction from baseline in daily seizure rate was not significantly different ( $p = 0.97$ ) between topiramate 25 mg/kg (20.4%) and placebo (13.1%). Comparisons of lower doses of topiramate and placebo were not significant. Similar results were obtained when the analysis was adjusted for sex, and type or number of AEDs at baseline. Treatment side effects occurred more frequently (>10% difference) with topiramate than with placebo. These included fever, diarrhea, vomiting, anorexia, weight decrease, somnolence, and