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). (Glauser 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 Glauser, Cincinnati Children's Hospital, 3333 Burnett Ave, MLC 2015, Cincinnati, OH 45229. E-mail: tracy.glauser@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. Attentiveness 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

viral infection. (Novotny E, Renfroe B, Yardi N, et al. Randomized trial of adjunctive topiramate therapy in infants with refractory partial seizures. **Neurology** March 2, 2010;74:714-720). (Reprints: Dr Edward Novotny, Seattle Children's Hospital, 4800 Sand Point Way NE, Neurology B-555-2, Seattle, WA 98105. E-mail: ejn4@u.washington.edu).

COMMENT. In this AED study employing video EEG, topiramate is ineffective as adjunctive therapy for refractory partial-onset seizures in infants aged 1 month to 2 years. In children older than 2 years, topiramate is effective in controlling refractory seizures of multiple types and is well tolerated in doses ranging from 1 to 24 mg/kg/d. (Ritter FJ et al. **Ann Neurol** 2003;54(suppl 7):E2. Abstract).

In an editorial (**Neurology** 2010;74:708-709), Thio LL and Dodson WE comment that results of AED trials in adults and children cannot be extrapolated to infants with severe epilepsy. Infants with milder epilepsies than those in the Novotny trial may respond. Topiramate may be effective in new-onset epilepsy in infants under 2 years of age. Further Class I AED trials in infants should be encouraged.

LEVETIRACETAM ADD-ON THERAPY FOR ROLANDIC AND OTHER BENIGN IDIOPATHIC FOCAL EPILEPSIES

Effectiveness of levetiracetam (LEV) in treatment of typical benign rolandic epilepsy and variants of benign idiopathic focal epilepsies was studied in 32 children (mean age 10.6 years, range 4-14) by researchers at Epilepsy Centre for Children and Young People, Vogtareuth, Germany. Patients with a reduction in seizure frequency >50% and/or reduction in benign idiopathic focal epileptiform discharges (BIFEDC) >90% 3 months after starting LEV therapy were defined as responders. The average dose of LEV was 39 mg/kg/d, and monotherapy was used in 31.3% of patients. Twenty (62.5%) of 32 patients benefited: 12 of 24 had a >50% reduction in seizure frequency, 2 of 24 (8.3%) were completely seizure free, 18 of 32 (56.3%) had a >90% reduction in BIFEDC (including continuous spikes and waves during sleep), 6 of 32 (18.8%) had an EEG completely free of epileptiform discharges, and 17 of 32 (53.1%) showed improvement in cognition and/or language functions and/or behavior. (von Stulpnagel C, Kluger G, Leiz S, Holthausen H. Levetiracetam as add-on therapy in different subgroups of "benign" idiopathic focal epilspsies in childhood. **Epilepsy Behav** Feb 2010;17:193-198). (Respond: Dr C von Stulpnagel. E-mail: celina1@gmx.de).

COMMENT. The arguments opposed and general reluctance to treat the EEG abnormality in children with cognitive and behavioral disorders associated with subclinical rolandic epilepsy and atypical variants are gradually being eroded by the above and other reports. Several studies have shown that up to 50% of children with benign idiopathic focal epileptiform discharges without clinical seizures may have cognitive deficits and/or behavioral problems such as ADHD, related in part to the abnormal EEG. (Deonna T. **Epileptic Disord** 2000;2(Suppl 1):S59-61); Nicolai J et al. **Epilepsy Behav** 2006;8:56-70; Yung AW et al. **Pediatr Neurol** 2000;23:391-395; Schubert R. **Pediatr Neurol** 2005;32:1-10).