worse on 62% of the variables and better on 0%, while LMG was worse on 2.5% and better on 2.5% of variables. (Meador KJ, Loring DW, Ray PG et al. Differential cognitive and behavioral effects of carbamazepine and lamatrogine. Neurology May (1 of 2) 2001;56:1177-1182). (Reprints: Dr KJ Meador, Department of Neurology, Medical College of Georgia, 1120 15th St (BA3410), Augusta, GA).

COMMENT. Lamotrigine in healthy adult volunteers has fewer adverse cognitive and behavioral effects than carbamazepine at midrange standard anticonvulsant doses. Cognitive and behavioral side effects of AEDs are significant factors in decision to treat and duration of therapy of seizure disorders, especially in children. Equally important is a neuropsychological impairment that may be associated with the epilepsy syndrome, independent of any effects of AEDs.

NEUROCOGNITIVE PROFILE OF ABSENCE EPILEPSY SYNDROME

Cognitive and language function was determined in 16 children (mean age, 9.2 years; range 6-16) with absence epilepsy compared to 16 controls at the University of Catania, Italy. Children with absence epilepsy had subtle but significant deficits in global cognitive functioning (median full-scale IQ 90.8 cf 103.2 in controls), and in visuospatial skills, nonverbal memory and delayed recall, while verbal memory and language function was preserved. Patients with early-onset seizures (< age 4 years) had more severe cognitive deficits than those whose epilepsy developed after age 4 years. (Pavone P. Bianchini R, Trifiletti RR et al. Neuropsychological assessment in children with absence epilepsy. Neurology April (2 of 2) 2001;56:1047-1051). (Reprints: Dr Piero Pavone, Divisione di Neuologia Pediatrica, Clinica Pediatrica, Universita di Catania, Viale Andrea 6, 95125 Catania, Italy).

COMMENT. Possible factors responsible for the impaired cognitive functioning in absence epilepsy syndrome include the effects of the seizures, the frequency and duration of the seizures, the underlying cause of the epilepsy, and the cognitive effects of antiepileptic drugs. The majority of patients in this study were treated with valproate monotherapy, and the possible adverse effects of the anticonvulsant cannot be discounted. (See Ped Neur Briefs Dec 2000;14:92, for report of study showing adverse effects of valproate on learning, memory, and behavior (Ronen et al. 2000)). The long-term follow-up of patients, comparing those whose seizures remit early and those requiring persistent therapy, would assist in differentiating the cause or causes of the cognitive dysfunction.

SUPPRESSION OF INTERICTAL EPILEPTIC ACTIVITY BY AEDs

Rates of full suppression of interictal epileptiform activity were compared for phenobarbital (PHB), carbamazepine (CBZ), and valproate (VPA), in a study at Tufts University School of Medicine, Boston, MA. Comparing 213 pairs of EEGs, overall suppression rates of epileptiform activity in the second EEG were 12/55 (22%) for PHB, 27/81 (33%) for CBZ, and 35/77 (46%) for VPA (P=.005 for VPA vs PHB). Comparing EEG pairs with only generalized or focal discharges, VPA and CBZ were superior to PHB in suppressing generalized interictal epileptiform activity (47%, 38%, and 17%, respectively) and focal discharges (42%, 32%, and 23%, respectively). Comparing EEG pairs whose inter-EEG interval was less than 1 year, VPA and CBZ were equally effective and superior to PHB in suppressing generalized discharges (46%, 50%, and 14%, respectively), whereas VPA was superior to both CBZ and PHB in suppressing focal discharges (40%, 22%, and 19%, respectively). (Libenson MH, Caravale B. Do antiepileptic drugs differ in suppressing interictal epileptiform activity in children? Pediatr Neurol March