

SEIZURE DISORDERS

INTRACTABLE SEIZURES AFTER ANTIEPILEPTIC WITHDRAWAL

The frequency of relapse and occurrence of intractable epilepsy following withdrawal of antiepileptic drug (AED) treatment in a Nova Scotia population-based cohort of children with epilepsy was studied at Dalhousie University, Halifax, NS, Canada. Patients (n=367), ages 1 month to 16 years, had partial or convulsive seizures, and at least 5 years follow-up. Those with benign rolandic epilepsy were excluded. Intractability was defined as one or more seizures every 3 months during the last year of follow-up despite maximum tolerated doses of 3 or more AEDs. Seventy one percent (260/367) had become seizure free for 1 to 4 years before discontinuing AEDs. Thirty percent had recurrence of seizures, but only 3 (1%) with recurrences developed intractable seizures. Two were eventually controlled, 1 after temporal lobectomy. Factors predictive of relapse were not determined. (Camfield P, Camfield C. The frequency of intractable seizures after stopping AEDs in seizure-free children with epilepsy. **Neurology** March (2 of 2) 2005;64:973-975). (Reprints: Dr Peter Camfield, IWK Health Centre, 5850/5980 University Ave, PO Box 9700, Halifax, NS, B3K 6RS, Canada).

COMMENT. While one third have seizure recurrences, only 1% of children discontinuing treatment after 1 to 4 years of AED control will develop intractable epilepsy. The authors comment that their study group was evaluated before MRIs were available, and the advent of MR neuroimaging may have provided clues to predict cases at risk of epilepsy intractability.

The EEG and Risks of AED withdrawal. The EEG may be of value in predicting relapse during withdrawal of AEDs, according to a study of 128 patients (mean age 28 years) with partial epilepsies. (Tinuper P et al. **Neurology** 1996;47:76-78; **Ped Neur Briefs** Aug 1996). Worsening of EEG abnormalities after starting drug withdrawal was more predictive of relapse than pre-withdrawal dysrhythmias or slowing. Several studies of the EEG and drug withdrawal have shown conflicting results regarding its value in predicting outcome (see **Progress in Pediatric Neurology I and III**, PNB Publishers, 1991 and 1997). Interictal EEG slowing was predictive of seizure recurrence in a prospective cohort study of 264 children (Shinnar S et al. **Ann Neurol** 1994;35:534-545; **Ped Neur Briefs** June 1994). Approximately one third relapsed during AED withdrawal, after 2 or more years of seizure control, a similar relapse rate to that reported in the current Camfield study.

CORTICAL TRIGGERS IN GENERALIZED REFLEX EPILEPSIES

The electroclinical patterns of generalized reflex seizures (GRS) triggered by sensory or cognitive stimuli are reviewed in a report from Montreal Neurological Hospital, Canada; and Università degli Studi di Messina, Italy. Four major patterns of GRS having a focal cortical trigger are identified: 1) photosensitive seizures are subverted by the occipital cortex; 2) tactile or noise-induced seizures, by the sensorimotor cortex; 3) cognitive-induced (mental arithmetic, block design) by the non-dominant parietal lobe; and 4) reading, talking, and writing-induced epilepsies, by dominant frontotemporal lobes. Clinically, the seizures