

PEDIATRIC NEUROLOGY BRIEFS

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ANTIPILEPTIC DRUGS

AED WITHDRAWAL: RISK FACTORS

The results of a prospective cohort study to investigate the effects of withdrawal of AEDs in 264 children with epilepsy after a mean seizure-free interval of 2.9 years are reported from the Montefiore/Einstein Epilepsy Management Center, Bronx, NY. Seizures recurred in 95 (36%); the mean time to recurrence was 9.5 months with a median of 4.3 months, and 90% of recurrences occurred within 25 months after study entry. The mean follow-up period was 58 months. Etiology was a significant risk factor. In the group with *idiopathic epilepsy*, significant risk factors for recurrence included age at onset > 12 years, family history of epilepsy, history of atypical febrile seizures (defined as seizures with fever and a history of prior afebrile seizures, or complex febrile seizures), EEG slowing, and specific syndromes such as benign rolandic epilepsy and juvenile myoclonic epilepsy. In the *remote symptomatic* group (includes only children with significant prior cerebral pathologies), significant predictors of seizure recurrence were age at seizure onset > 12 years, moderate to severe mental retardation, history of atypical febrile seizures, and history of absence seizures. (Shinnar S et al. Discontinuing antiepileptic drugs in children with epilepsy: a prospective study. Ann Neurol May 1994;35:534-545). (Respond: Dr Shinnar, Epilepsy Management Center, Montefiore Medical Center, 111 E 210th Street, Bronx, NY 10467).

COMMENT. The results of this extensive, prospective study agree with previous reports showing that approximately one third of children who have been seizure free for 2 or more years while on AED therapy will relapse when medication is withdrawn. In children with cerebral pathologies and remote symptomatic epilepsy, almost 50% suffered recurrences. The risk factors reported in these study groups provide a valuable guide to a decision to terminate therapy. However, the final decision should consider each child as an individual, taking into account the consequences of a seizure recurrence and the possible adverse effects of continued antiepileptic medications. For further articles on this topic, see Progress in Pediatric Neurology, PNB Pub, 1991.

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Holmes GL, Children's Hospital, Boston, in an editorial (Ann Neurol 1994;35:509), appears to favor a trial period of withdrawal rather than indefinite continuation of AEDs, even in children with significant risk factors. He cites Lennox and Lennox (1960) who criticized proponents of anticonvulsant continuance for life, and notes the psychological consequences and expense of long term therapy. In contrast to the concerns of Shinnar and colleagues, Holmes down plays AED side effects as a compelling reason to discontinue therapy and finds that cognitive and behavioral impairments are overstated. He takes issue with the provocative statement of our respected colleague, John Freeman, that "antiepileptic drugs are all poisons."(Curr Probl Pediatr April 1994;24:139-48).

VALPROATE-INDUCED THROMBOCYTOPENIA

A 14-year-old mentally retarded boy with seizures who presented with severe thrombocytopenia, macrocytic anemia and allergic dermatitis after treatment with valproate for 12 years is reported from the University of Louvain Medical School, Brussels, Belgium. Serum valproate level was 48 mcg/ml. Bone marrow examination showed myeloblastic abnormalities. Recovery followed withdrawal of valproate. (Brichard B et al. Haematological disturbances during long-term valproate therapy. Eur J Pediatr May 1994;153:378-380). (Respond: Dr B Brichard, Dept Paediatric Haematology, Univ Louvain Med School, Avenue Hippocrate 10, B-1200 Brussels, Belgium).

COMMENT. Thrombocytopenia is a well known side effect of valproate therapy. It is related to antibody-mediated platelet destruction, and tests for serum direct antiplatelet antibodies are positive. This report is unusual in the delayed occurrence of hematologic toxicity, even with relatively low serum levels of valproate.

SEIZURE DISORDERS

FIRST FEBRILE SEIZURE CHARACTERISTICS

Clinical characteristics of 910 first febrile seizures in children aged 8 to 34 months, evaluated by telephone interview of parents, are reported from the University of Washington School of Medicine, Seattle, WA. A male preponderance of 57% and a family history of febrile seizures in 29% were elicited. Focal seizures, including only eye deviation in the definition of some, were reported in 18%; Todd's paresis in 4%. Infections associated with fever included otitis media 32%, tonsillitis or URI 12%, viral exanthem 12%, and immunizations 2%. The average temperature recorded at the time of the seizure was 103.7°F. Prolonged seizures and recurrence in the same illness, factors related to increased risk of subsequent nonfebrile seizures, were significantly more frequent in children aged 8-11 months, when compared to those older than 12 months. (Farwell JR et al. First febrile seizure. Characteristics of the child, the seizure, and the illness. Clin Pediatr May 1994;33:263-267). (Respond: Jacqueline R Farwell MD, Division of Neurology, Children's Hospital, 4800 Sand Point Way NE, Seattle, WA 98105).

COMMENT. Notwithstanding the limitations of the method of data collection, some of the Seattle findings are of interest as they compare