

## SEIZURE DISORDERS

### **PATHOPHYSIOLOGY OF INFANTILE SPASMS**

An age-specific endogenous-convulsant hypothesis implicating corticotropin-releasing hormone (CRH), an excitant neuropeptide suppressed by ACTH/steroids, is proposed for the pathophysiology of massive infantile spasms in a report from the University of Southern California, Los Angeles, CA. Stated briefly, abnormally increased CRH synthesis and activity results in neuronal hyperexcitability. Deranged CRH-responsive brain-stem circuits may explain the spasms. ACTH treatment controls spasms and modifies the EEG by suppressing CRH synthesis. (Baram TZ. Pathophysiology of massive infantile spasms: Perspective on the putative role of the brain adrenal axis. Ann Neurol March 1993; 33 231-236). (Respond: Dr Baram, Division of Neurology (#82), Childrens Hospital Los Angeles, 4650 Sunset Blvd, Los Angeles, CA 90027).

**COMMENT.** The author proposes that specific receptor blockers of CRH will arrest infantile spasms and may prove safer than ACTH and of some benefit to cognitive function.

The results of ACTH treatment in 21 children with intractable seizures other than infantile spasms at the Children's Hospital, Camperdown NSW, Sydney, were disappointing. Only 24% had a good response. Hypokalemia, hypertension, and infection complicated treatment in 43%, 33%, and 19%, respectively. (Charuvani A, Ouvrier RA et al. Brain Dev 1992; 14: 102). More favorable results have been reported by some.

### **SURGICAL TREATMENT OF EPILEPSY: 40 YEARS EXPERIENCE**

The results of surgical treatment between 1940 and 1980 of 118 children with frontal or temporal lobe epilepsy were reviewed at the Montreal Neurological Institute. The mean age of seizure onset was 5.1 years, the mean age at operation 11.7 years, and the follow-up was 15 years (range 2-31 years). Outcome was excellent in 13 of 45 (29%) frontal surgery patients and 43 of 73 (59%) temporal surgery patients. A history of prolonged febrile seizures in 22 (30%) of the temporal surgery group was associated with a good prognosis. Secondly generalized seizures occurring in 60 (50%) patients usually predict a poor prognosis. (Fish DR et al. Surgical treatment of children with medically intractable frontal or temporal lobe epilepsy: Results and highlights Of 40 years' experience. Epilepsia March/April 1993; 34: 244-247). (Reprints: Dr Luis F Quesney, 3801 University St, Montreal, Quebec, Canada, H3A 2B4).

**COMMENT.** Surgical epilepsy candidates with a history of febrile convulsions and without secondarily generalized seizures are most likely to benefit from temporal lobe resection.