

SEIZURE DISORDERS

PYRIDOXAL PHOSPHATE VS PYRIDOXINE FOR INTRACTABLE SEIZURES

The efficacy of pyridoxal phosphate (PLP) compared to pyridoxine (PN) in the control of idiopathic intractable epilepsy was studied in 94 children, aged 8 months to 15 years, at the National Taiwan University Hospital, Taipei, Taiwan. Fifty-seven patients had generalized seizures (infantile spasms in 13) and 37 had focal seizures. Intravenous PLP 10 mg/kg was followed by 10 mg/kg/day orally in 4 divided doses. The dose was increased to 50 mg/kg/day if seizures recurred within 24 hours of the first injection. PN was substituted if seizures were completely controlled by PLP. Eleven (11.7%) responded dramatically to PLP (6 had infantile spasms), and of these, 5 also responded to PN. The mean ages of vitamin B6 responders and non-responders were 6.3 and 72 months, respectively. No side effects occurred, and tests of sensory and motor nerve conduction were normal. (Wang H-S, Kuo M-F, Chou M-L et al. Pyridoxal phosphate is better than pyridoxine for controlling idiopathic intractable epilepsy. *Arch Dis Child* May 2005;90:512-515). (Respond: Dr M-F Kuo, Division of (Pediatric) Neurosurgery, National Taiwan University Hospital, 7 Chung-Shan S Road, Taipei 100, Taiwan).

COMMENT. Vitamin B6 may be effective not only in pyridoxine dependent epilepsy but also as an adjuvant therapy in other intractable epilepsies, especially infantile spasms. PLP should be substituted if an initial trial of PN is ineffective. EEG monitoring is essential at initiation of IV therapy to check for pyridoxine-induced severe electroclinical suppression (Bass NE et al. *J Child Neurol* 1996;11:422-424). Baxter P in a commentary (*Arch Dis Child* 2005;90:441-442) recommends early treatment with pyridoxal phosphate (with vigabatrin) for 2 weeks for infantile spasms, followed by pyridoxine in responsive cases.

ACTH THERAPY IN EPILEPTIC SPASMS WITHOUT HYPSSARRHYTHMIA

The short and long-term effects of adrenocorticotrophic hormone (ACTH) in 30 children ages 11 to 86 months (median 29 months) with epileptic spasms (ES) without hypsarrhythmia were analyzed at Tokyo Women's Medical University, Japan. The short-term effect was excellent in 19 (63%) and poor in 11 (37%). Long-term (follow-up >1 year), 8 (29%) continued seizure free, whereas 9 had seizure recurrence. In 9 of the responders, EEG had changed from diffuse abnormality to a frontal focus. (Oguni H, Funatsuka M, Sasaki K et al. Effect of ACTH therapy for epileptic spasms without hypsarrhythmia. *Epilepsia* May 2005;46:709-715). (Reprints: Dr H Oguni, Department of Pediatrics, Tokyo Women's Medical University, 8-1 Kawada-cho, Shinjuku-ku, Tokyo 162, Japan).

COMMENT. Significant improvement in language, cognition, and behavior is reported in 9 of 10 patients with Landau-Kleffner syndrome or CSWS treated with prednisone 1 mg/kg/day (Sinclair DB, Snyder TJ. *Pediatr Neurol* 2005;32:300-306).