

SEIZURE DISORDERS

MUSICOGENIC EPILEPSY IN AN INFANT

A 6-month-old infant with seizures triggered by loud music, especially specific songs of the Beatles, is reported from Chang Gung Children's Hospital at Linkou, Taoyuan, Taiwan. He was born by cesarean section because of fetal distress and the Apgars were 5 and 8. Partial seizures, consisting of hand raising or mouth twitching, began at age 2 months and were initially controlled by carbamazepine and vigabatrin, started at 6 months. The interictal EEG was normal, but continuous EEG monitoring revealed ictal spikes throughout the left temporal area. MRI was normal. Finally, the seizures became generalized without the musical trigger and were resistant to medication. After 1 year, neurologic examination showed a progressive developmental delay. (Lin K-L, Wang H-S, Kao P-F. A young infant with musicogenic epilepsy. *Pediatr Neurol* May 2003;28:379-381). (Respond: Dr Wang, Division of Pediatric Neurology, Department of Pediatrics, Chang Gung Children's Hospital at Linkou, 5 Fu-Shin Street, Kweishan 333, Taoyuan, Taiwan).

COMMENT. The term, musicogenic epilepsy was first coined by Crichtley M (1936). Seizures are partial complex or generalized tonic-clonic and they originate in the temporal lobe. Musical specificity varies, classical, religious, military, or jazz; emotional content can be cheerful or sad; and some compositions are more epileptogenic (eg. Wagner, Beethoven). This is the first report of Beatles music as a trigger of seizures. Patients are usually adults, and the report of an affected infant is rare. As in this infant, both music-induced and spontaneous seizures generally occur in the same patient, and loud music is more provocative than soft sounds. The musicality of the patient and the style of music may both play a role in precipitating seizures. In rare cases, music has aborted seizures (in Lennox WG, Epilepsy and Related Disorders, Boston, Little Brown, 1960;p365).

EFFECT OF LAMOTRIGINE ON THE EEG

The effects of add-on lamotrigine (LTG) therapy on EEG paroxysmal abnormalities and background activity are evaluated retrospectively in 53 children and adolescents (mean age 12.5 years) with refractory epilepsy followed at Children's Hospital, Boston, MA. Multiple seizure types occurred in 25, generalized seizures in 15, and complex partial seizures in 13 patients. After adding LTG, seizures were controlled in 22%, a greater than 50% reduction in seizure frequency occurred in 26%, and less than 50% reduction in 13% of patients. Improvement in the EEG correlated with reduction in seizure frequency, and 12 of 82 EEGs were reported as normal for age after LTG therapy. Compared to baseline records, background activity was improved in 22% and was unchanged in 73%. Interictal abnormalities improved in 38% and were unchanged in 51%. Ictal EEG activity improved in 7 (41%) of 17 patients tested. EEGs of patients with complex partial seizures showed improvement more frequently than those with generalized seizures, 61% cf 41%, respectively. EEG improvement with LTG occurred in patients with