Periodic lateralized epileptiform discharges: A description of the electroclinical patterns in a series of pediatric patients. [Spanish, English]

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Abstract:

Introduction: Periodic lateralized epileptiform discharges (PLEDs) is an epileptiform pattern occurring at regular intervals, generally in critically ill children, and classified into bilateral PLEDs, independent PLEDs, generalized epileptiform discharges (GPEDs), and triphasic waves. They usually reflect severe neurological dysfunction and significant mortality has been reported in the literature. Objective: To assess initial clinical presentation, EEG features, etiology, evolution, and prognosis in patients with PLEDs. Material and Methods: A retrospective analysis of patients with an EEG pattern of PLEDs seen between 2008 and 2013 followed for 1 to 5 years was conducted. Semiology of the seizures and neuroimaging, neurometabolic, PL, and laboratory studies were evaluated. Results: Ten patients (6 male and 4 female) were included in the study. In seven, the PLEDs were unilateral and in the 3 remaining patients they were bilateral and asymmetric. Four children had herpes encephalitis, 2 immune-mediated encephalitis, 1 mitochondrial disease, 1 late-onset childhood lipofuscinosis, 1 a glioma, and the cause was unknown in 1. Four patients presented with focal-onset secondarily generalized seizures associated with an infectious etiology and chronic encephalopathy of unknown etiology and the remaining children had generalized and focal myoclonic seizures. A better response to treatment was obtained with a combination of LVT and TPM; VGB, corticosteroids, and the ketogenic diet were also used. The patients with lipofuscinosis and herpes-associated rhabdomyosarcoma developed refractory status epilepticus and died. The patients with herpes encephalitis became seizure free and their EEG pattern

improved. Seizures were difficult to control in those with immune-mediated encephalitis. Conclusions: PLEDs are associated with nonconvulsive status epilepticus and infectious, metabolic, and structural etiologies. Early diagnosis allows for vigorous treatment.