Diagnostic value of long-term video-EEG monitoring in children with refractory absence epilepsy

Alireza Rezaei
Tehran University of Medical Sciences, Iran

Abstract:
Objective: Absence seizures are commonly seen in a few pediatric genetic generalized epilepsy syndromes including childhood and juvenile absence epilepsies (CAE, JAE), absence with eyelid myoclonias (EMA–EM or Jeavons syndrome), atypical absence seizures as a component of Lenox-Gastaut syndrome (LGS). Here, we report the clinical and electroencephalographic features of patients with refractory absence epilepsy.

Methods: Twenty-five children referred with refractory absence epilepsy were retrospectively enrolled from more than 1100. We have used two digital VEEG instruments with the international 10-20 system and standard montages. Patients and their Clinical history and VEEG recordings were studied to find data including age, sex, seizure types, electrographic features, and family history of epilepsy.

Results: After using exclusion criteria, we had 16 patients that 4 patients had CAE and 2 had atypical absence epilepsy (AAE) and 10 had EMA–EM. Focal interictal SWD (spike-wave discharges) was seen in both atypical absence patients (100%), 2 (50%) patients of CAE, and 7 (70%) patients EMA–EM. Focal ictal onset was seen in 1 (25%) of CAE patients and one (10%) of EMA-EM patients.

Conclusion: EMA–EM should be considered in refractory childhood absence epilepsy and video-EEG recording is a useful method if EMA-EM is suspected. All EMA–EM and atypical absence patients were diagnosed after long-term EEG-monitoring (LTM).

Significance: Focal interictal and ictal onset might be recorded in generalized epilepsy especially in CAE which the importance of this issue should be considered in future investigations.

Keywords: absence epilepsy, Jeavons syndrome, atypical absence, focal seizure onset, focal interictal epileptic discharge, LTM, EEG monitoring, V-EEG

Biography:
Alireza Rezaei is a child Neurologist & Clinical Neurophysiologist and specialized Epileptologist. Currently working in Tehran University of Medical sciences in Iran. He completed his education from Shahid Behesht of Medical Sciences and Health sciences. He has a interest about Neurophysiology and refractory epilepsy so he started fellowship of clinical neurophysiology and epilepsy at children’s medical hospital in Tehran.

Recent Publications:
2. Telemedicine and Computer-Based Technologies during Coronavirus Disease 2019 Infection; A Chance to Educate and Diagnose.
3. Hegemonism and the US foreign policy approaches based on the three meanings of hegemony.