ABSTRACT

There is dearth of data on the pattern and utility of clinical variables that can independently determine EEG abnormalities in Generalized epilepsy (GE).

METHODS

A cross-sectional study involving the analysis of EEGs of consecutive patients with clinical diagnosis of idiopathic generalized epilepsy from three centers over a 7 year period. Information on socio-demographic and seizure variables was obtained. The International Federation of Societies for Electroencephalography and Clinical Neurophysiology definition of interictal epileptiform discharges (Interictal epileptiform activity [IEA]) was adopted for the study.

RESULTS

A total of 403 patients comprising 242 (60%) males and 161 (40%) females with clinical diagnosis of GE had EEG. Their age ranged between 2 weeks and 70 years with median age of 21 years and interquartile age of 26 years. Two hundred and thirty seven (58.8%) and 213 (52.9%) patients had abnormal EEG and IEA respectively. Table 1 showed the distribution of EEG abnormalities across age categories. Before adjustment for confounders, female gender (P=0.0001), pediatric age group (P=0.0388), duration of epilepsy of 1-4 years (P=0.01387), uncontrolled seizure (P=0.0060), seizure frequency (P=0.0001) were significantly associated with presence of abnormal EEG. However, age, female gender, poor seizure control and seizure frequencies were independent predictors of EEG abnormality (Table 2).

CONCLUSIONS

About 58% of patients with GE had abnormal EEG. Age, poor seizure control and high frequency of seizure were independent predictors of presence of EEG abnormality.

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REFERENCES