Age of onset in idiopathic (genetic) generalized epilepsies: clinical and EEG findings in various age groups.

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Abstract

PURPOSE: The prevalence and differences of idiopathic (genetic) generalized epilepsies (IGEs) with atypical age of onset compared to classical IGEs is a matter of debate. We tried to determine the clinical and EEG characteristics of IGEs in various age groups.

METHODS: All patients with a clinical diagnosis of IGE were recruited at the outpatient epilepsy clinic at Shiraz University of Medical Sciences from 2008 through 2011. We subdivided the patients into four different age groups: 4 years of age and under, 5-11 years, 12-17 years, and finally, 18 years and above, at the time of their epilepsy onset. Syndromic diagnosis, sex ratio, seizure types and EEG findings were compared. Statistical analyses were performed using Pearson Chi square test.

RESULTS: 2190 patients with epilepsy were registered. 442 patients (20.2%) were diagnosed as having IGEs. Age of seizure onset was 12.4±6.9 years. The peak age of onset had a bimodal appearance. Sixty-seven patients (15.2%) were four years and under at the time of the onset of their disease, 112 persons (25.3%) were 5-11 years, 197 people (44.6%) were 12-17 years of age, and 66 patients (14.9%) had 18 years and above at the onset of their epilepsy. The sex ratio was significantly different between patients in group one compared to groups three and four. All expected seizure types (i.e., generalized tonic-clonic, absence or myoclonic seizures) and all expected EEG abnormalities were observed among all age groups, despite some differences in their prevalence.

CONCLUSION: Although IGE syndromes are often age dependent and most of them appear within the first two decades of life, adult-onset IGE is not rare. Presentation of IGEs could be different in various age groups, but these differences do not offer pathognomonic or characteristic features at any age.