Prevalence of comorbidity of migraine and atopic diseases among patients with idiopathic epilepsy at Zagazig University Hospitals

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Introduction: Comorbid conditions are common in people with epilepsy, and their presence has important implications for diagnosis, treatment, medical costs and quality of life. Migraines are most common in patients with epilepsy, with a reported prevalence of 20-40%, while epidemiologic studies on the association between allergic disease and epilepsy in adults and children have found conflicting results.

Objective: The study was designed to assess the prevalence of migraine and atopic diseases: bronchial asthma (BA) and atopic eczema in patients with idiopathic epilepsy.

Methods: This study included 118 patients with idiopathic generalized epilepsy (IGE), 68 male and 50 female with ages ranged from 2-20 years (mean age 9.8±5.4 years). The patient will be considered to have migraine according to criteria of ICHD 3 (2013), to have BA according to diagnostic criteria of National Asthma Education and Prevention Program (2007) and to have atopic eczema according to Williams's criteria (1994). The patients were classified into two groups, group I epileptic patients without comorbidity and group II epileptic patients with comorbidity which was further classified into 2 subgroups, group II-A epileptic patients with one comorbidity and group II-B epileptic patients with multiple comorbidities. All patients were subjected to: clinical assessment via thorough history taking, complete general and neurological examination, EEG, MRI brain and routine laboratory investigations. The data were compared in both groups.

Results: IGE was more common in male than female (55.9% vs. 44.1%). Atopic eczema was the most frequent comorbid illness (32.2%) followed by migraine (24.6%) and BA (24.6%) while The prevalence of atopic eczema, migraine and BA in the general population was 20%, 15% and 4%-20%, respectively. Epileptic patients with multiple comorbidities had a statistically significant older age of onset than epileptic patients one comorbidity and without comorbidities (P=0.001). Also female sex was statistically higher in epileptics with comorbidities. Epileptics with migraine had female preponderance (69%). MA was more common (79.3%). Migraine onset followed epilepsy onset in 48.2%. Migraine attack occur most interictally. The bronchial asthma comorbidity in our patients was with a more prominent onset before epilepsy (76%). Mild asthma was more common in epileptics in our study and it was common postictally. Atopic eczema comorbidity in our patients was with an onset more commonly prior to that of epilepsy and it occurred in a mild form and usually interictal.

Conclusion: Patients with IGE had comorbidity with atopic eczema (32.2%) migraine (24.6%) and BA (24.6%). Family history for epilepsy was more in patients with comorbidity and they need polytherapy of AEDs more than those without comorbidity.

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