

Clinical characteristics of the genetic generalized epilepsy patients with sleep convulsive seizure

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Objectives: To explore the clinical characteristics of patients with generalized genetic epilepsies (GGEs) who experienced sleep generalized tonic clonic seizures (GTCs).

Methods: This a retrospective observational descriptive study in which, we analyzed the medical records of consecutive patients who were newly or previously diagnosed with generalized genetic epilepsies in a specialized epilepsy clinic in Cairo, Egypt since January 1994 and till January 2015. Patients included had a definite diagnosis of GGE with generalized tonic-clonic seizures (GTCs) (either alone or in combination with myoclonic jerks and/or absence). The study cohort was divided into two groups, the first with sleep/wakefulness (S/W) GTCs and the other with only wakefulness (W) GTCs.

Results: 102 patients were included. Mean age of onset of epilepsy (SD/range) was 14.1 years (\pm 4.6/ 4-30 years) and

mean follow-up duration (SD/range) was 12.4 years (\pm 2.6/10-20 years). 15 patients (14.7 %) experienced (S/W) GTCs. In univariate analysis, absence seizures ($p=0.02$), Juvenile absence epilepsy syndrome (JAE) ($p=0.002$) and Juvenile myoclonic epilepsy syndrome (JME) ($p=0.01$) were significantly correlated to the patients with GGE who experienced sleep GTCs.

Significance: GTCs during sleep were experienced by one seventh of the patients with GGE. A link was observed between absence seizure type, JAE/JME epilepsy syndromes and sleep convulsive seizures in the patients with GGE.

Keywords: Generalized epilepsy, sleep seizures, absence, Sleep, Juvenile absence, Juvenile myoclonic.