Restless legs syndrome (RLS) in the Georgian patients with and without epileptic seizures: A questionnaire study

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Background: According to the pilot study, RLS is more prevalent among the general population of Georgia (*Kuchukhidze et al., Sleep Medicine, v.8, Suppl.1, 2007, S81*) than in Turkey (*Sevim et al., Neurology, 2003, 61, 1562–1569),* which shares a border with Georgia. Several studies indicated that people with RLS have a positive therapeutic response to dopaminergic and anticonvulsive drugs. Our recent findings showed that RLS is present in 15.7% of individuals with epilepsy. Taking into account these mentioned circumstances the aim of the present work was to investigate the distribution of RLS in those with focal epileptic seizures as well as in the those having non-epileptic seizures, and the relation with treatment by antiepileptic drugs (AEDs).

Methods: The RLS questionnaire (Allen RP, 2003) was filled out (following appropriate English-Georgian translation and backtranslation) by 159 consecutive patients (83 males and 76 females), aged 18-76 years (30±15.4), admitted to the Institute of Neurology and Neuropsychology (INN) for diagnosis and/or revision of diagnosis of epilepsy. In all cases RLS was identified by the four or at least three minimal positive response on the RLS criteria; the inter-group differences were analysed by SPSS statistical software version 13.0. An association for categorical variables was examined by Pearson Chi-square Test; Student's *t* test was used for continuous variables.

Results: Following the multidisciplinary investigations (consultation of neurologist/epileptologist, sleep research specialist, neuropsychological testing and EEG-recordings), out of total sample (n=159), 77 individuals were diagnosed as having epileptic seizures and 82 persons admitted with incorrect diagnosis of epilepsy (made at the primary health care level) were diagnosed in the INN as having non-epileptic seizures. Out of those with epileptic seizures (n=77), 59 individuals had taken AEDs (Carbamazepine, Valproate or combinational therapy) and 18 were newly diagnosed patients not being on antiepileptic therapy before. Because of missed diagnosis of epilepsy, 19 out of 82 subjects with non-epileptic seizures had received AEDs before admittance to INN. Overall, RLS was less apparent among the subjects with epileptic seizures (16.9%; 13 out of 77) than in individuals with non-epileptic seizures

(30.5%; 25 out of 82), (p=0.044). In those with non-epileptic seizures, RLS was more often found in individuals who had been incorrectly diagnosed with epilepsy and treated with AEDs (57.9%; 11 out of 19) than the subjects who did not received AEDs (22.2%; 14 out of 63), (p=0.005). However, in patients with epilepsy, RLS was less distributed in the subjects on anticonvulsive therapy (15.3%, 9 out of 59) than in the newly diagnosed, untreated individuals (22.2%, 4 out of 18). This difference as well as the gender difference between groups was statistically not significant.

Conclusion: It is suggested that the reason of higher rates of RLS in the general population of Georgia, as well as among subjects with epilepsy, particularly in persons having non-epileptic seizures, may be that that the adapted Georgian language RLS questionnaire did not pass the validation process with the Georgian population. As a next step, validation of the International RLS questionnaire would be recommended and would need to take into account specific cultural particularities of the Georgian population. In Georgia, raising awareness about RLS diagnostic issues has started recently.