

PREVALENCE OF DEPRESSION AND ANXIETY AMONG PATIENTS WITH EPILEPSY

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Introduction: Depression is the most frequent psychiatric comorbidity in epilepsy. [1] Indeed, some authors estimate the lifetime prevalence of depression in association with epilepsy to be as high as 55%. [2] Depression can lead to seizures by means of sleep deprivation, and seizures can lead to depression both through biological mechanisms and the psychosocial impact that epilepsy has. [3] Comorbid anxiety disorders have a major impact on the affected patients' quality of life and may increase the risk for suicidality. [4]

Methods and materials: Data for analysis were collected in a Lithuanian tertiary epilepsy center to assess the prevalence of depression and anxiety in epilepsy patients. We asked patients to complete several questionnaires which included Hospital Anxiety and Depression Scale (HADS). Demographic data and information about patients' type of seizures, epilepsy duration and instrumental findings was collected from the outpatient cards. Data were processed with Microsoft Excel 2016, and analyzed by IBM SPSS® (version 23.0). Difference was considered statistically significant if $p < 0.05$.

Results: 167 cases (96 (57.5%) - women), mean age - 36.05 ± 15.75 years, mean epilepsy duration - 14.35 ± 11.82 years) were analyzed. According to Hospital Anxiety and Depression Scale, 92 patients (55.1%) experience no anxiety, 35 patients (21%) have borderline abnormal level of anxiety and 40 patients (24%) have abnormal level of anxiety. Concerning depression results, 118 patients (70.7%) have no depression, 26 patients (15.6%) have borderline abnormal level of depression and 23 patients (13.8%) resulted in having abnormal level of depression. When comparing men and women, 24 men (33.8%) vs 51 women (53.1%) had borderline abnormal and abnormal level of anxiety ($p = 0.032$), whereas results of the depression evaluation, according to HADS, do not differ between genders. We observed a moderate positive correlation between higher level of anxiety (abnormal HADS result) and higher frequency of epileptic seizures ($r = 0.464$, $p = 0.001$) and a moderate positive correlation between depression and higher frequency of epileptic seizures ($r = 0.443$, $p = 0.003$). Less patients, who have seizures only during the day, had a borderline abnormal and abnormal HADS anxiety result in comparison with those, who experience seizures also in the nighttime (27 patients (31%) vs 42 patients (61.8%)) ($p = 0.004$). We also found higher anxiety levels, according to HADS, in patients, whose marital status was widowed, divorced or single. In contrary, patients who are married or in a relationship expressed lower levels of anxiety ($p = 0.016$). Marital status does not have a significant impact on the HADS depression evaluation result. We observed no significant differences in HADS depression and anxiety results when comparing groups, according to the type of epilepsy (generalized vs focal). HADS depression and anxiety results were not affected by epilepsy duration.

Conclusions: Depression and anxiety are common comorbidities among patients with epilepsy. The abnormal level of anxiety is more prevalent in women. Depression and anxiety in epilepsy patients are mostly related to higher frequency of seizures, nighttime seizures and marital status.

[1] Kanner, Andres M. "Depression and epilepsy: a new perspective on two closely related disorders" *Epilepsy currents* vol. 6,5 (2006): 141-6.

[2] Jackson MJ, Turkington D. "Depression and anxiety in epilepsy" *Journal of Neurology, Neurosurgery & Psychiatry* 2005;76:i45-i47.

[3] Gnanavel, Sundar. "Epilepsy and Depression: A Bidirectional Relationship" *Journal of neurosciences in rural practice* vol. 8, Suppl 1 (2017): S5-S6.

[4] Brandt, Christian et al. "Anxiety disorders in people with epilepsy" *Epilepsy & Behavior*, Volume 59, 87 – 91.