



## Worrying More About Anxiety in Patients With Epilepsy

### The Prevalence of Anxiety and Associated Factors in Persons With Epilepsy.

Pham T, Sauro KM, Patten SB, Wiebe S, Fiest KM, Bulloch AGM, Jette N. *Epilepsia* 2017;58:e107–e110.

The objectives of this study were to estimate the prevalence of, and factors associated with, anxiety in epilepsy. We conducted a cross-sectional analysis using data from the Neurological Disease and Depression Study. The prevalence of anxiety and associated factors were assessed using descriptive statistics and logistic regression. Of the total sample (n = 250 patients), nearly 40.0% of participants had anxiety according to the Hospital Anxiety and Depression Scale. The most prevalent symptom of anxiety was “worrying thoughts” (35.6%). After adjustment for age and sex, depression (odds ratio [OR] = 8.97, 95% confidence interval [CI] = 4.38-18.40), medication side effects (OR = 1.79, 95% CI = 1.04-3.05), smoking (OR = 4.35, 95% CI = 2.27-8.31), and illicit substance use (OR = 2.42, 95% CI = 1.18-4.96) were significantly associated with higher odds of anxiety, whereas higher education (OR = 0.47, 95% CI = 0.28-0.80) was associated with lower odds of anxiety. Furthermore, participants with anxiety reported more severe epilepsy, debilitating seizures, and overall lower quality of life. Evidence from our study reveals a high prevalence of anxiety in persons with epilepsy and that anxiety is associated with a variety of negative outcomes. These findings further emphasize the need for more studies to understand the impact of anxiety and its relationship with various sociodemographic and clinical factors.

### Commentary

Approximately one-third of patients with epilepsy suffer from a psychiatric disorder (1). Depression and anxiety are the most common of these, especially with drug-resistant mesial temporal lobe epilepsy, and are responsible for reduced quality of life and overall worse outcomes (2, 3), including worse surgical outcomes (4). The rising number of research publications in the area of comorbidities with epilepsy focuses mainly on depression and has demonstrated that depression is both a risk factor for and a consequence of epilepsy. Anxiety is also extremely common in people with epilepsy, especially in those who are depressed, and in the general population exceeds depression (5). Far less effort has been focused on the impact of anxiety in people with epilepsy. Part of the reason may be that anxiety is more complicated to study. It is difficult to differentiate anxiety that is due to antiepileptic drug side effects, from anxiety that is due to ictal panic, or from an anxiety disorder. While difficult to study, there are new efforts to understand the incidence and prevalence of anxiety in people with epilepsy. One large, validated, general population-based health survey in Canada showed that anxiety and depression (suicidal thoughts) in those with epilepsy had odds ratios of 2.4 and 2.2 compared with those without epilepsy (1). Another study using a meta-analysis found the pooled prevalence of anxiety (20.2%) and

depression (22.9%) in epilepsy were quite elevated and quite similar (6). Validated instruments such as the Generalized Anxiety Disorder, Hospital Anxiety and Depression Scale (HADS), the Patient Health Questionnaire-9 (rapid depression screen), or Neurologic Disorders Depression Inventory for Epilepsy (NDDI-E) are important for neurologists to incorporate into their regular visits in order to formally screen their patients and uncover who is at higher risk of harm and who needs treatment, although there are likely systems reasons that this is generally not done. Many clinicians may pick up clues that their patient is anxious without ever asking a direct question and they may have the common experience that direct questions can lead to denial of symptoms and concern about the stigma of appearing like they need a psychiatrist. Scott et al. (6) showed that there is a significantly higher rate of capturing anxiety if formal screening is used (27.3%) rather than just “clinician evaluation” (8.1%). This means that efforts need to be made to train physicians on the importance of using standardized screening instruments over their own clinical intuition. It is also likely that training is required to demonstrate best practices in how to do this so that the patient is accepting and the doctor-patient relationship is enhanced and not harmed. Neurologists should be taught to facilitate the integration of care with their patient’s mental health needs.

The treatment will differ depending on the type and severity of the symptoms and when they occur, though, strikingly nearly one-third of patients with comorbid anxiety or depression are not receiving any treatment at all (7). Neurologists may be reluctant to “play psychiatrist” and may just notice their



patient is anxious, but not do much more than prescribe an anticonvulsant with antianxiety properties, or dismiss patient concerns as “normal anxiety.”

In a recent study, Pham and colleagues (8) attempted to estimate the prevalence of anxiety in epilepsy and described the factors associated with it. Controlling for age and sex, depression, medication side effects, smoking, and illicit substance use were associated with higher anxiety. In the 250 eligible subjects, nearly 40% had elevated anxiety scores on the HADS-A with “worrying thoughts” the most common symptom, and “feeling frightened” the second most common symptom. In addition, those with greater anxiety were noted to have more severe epilepsy (defined by the Global Assessment and Severity Scale: frequency and intensity of seizures, injuries or falls associated with seizures, severity of the postictal period, amount and side effects of the AEDs, and interference of drugs or seizures with daily life activities, increased disability associated with seizures), and overall worse quality of life in those with greater anxiety.

Interestingly, they found that while anxiety and depression are significantly correlated in people with epilepsy, more than half of the people with anxiety did not have depression, and that anxiety and depression correlated with different health-related quality of life measures. What this study showed is that it is critical to separate out anxiety’s unique contributions to a person’s health.

Neurologists must be able to recognize comorbidities in their patients as they carry a high risk of morbidity and mortality. It is therefore crucial to understand the prevalence of anxiety independently from depression in our patients with epilepsy. There is interest for future research to discover useful biomarkers for these common psychiatric comorbidities in order to identify as early as possible those patients in need of treatment and to predict who may do well and who may need alternative treatments (9). There is increasing evidence that neurologists need to worry about more than just seizure

frequency in their patients with epilepsy. Further research should include increasing the focus on anxiety in epilepsy and understanding its impact on all types of outcomes in order to improve them.

by *Barbara A. Dworetzky, MD*

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