CURRENT LITERATURE

DEPRESSION IN EPILEPSY IS MUCH MORE THAN A REACTIVE PROCESS

Relation between Depression and Intractability of Seizures

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Patients with epilepsy have a higher prevalence of depressive disorders than the general population, but the relation between seizure rates and depression has not been adequately studied. We used the Beck Depression Inventory to evaluate depressive symptoms in 143 consecutive epilepsy patients from outpatient clinics. Patients who were seizure free for more than 6 months were considered not intractable. Thirty-six percent were neither intractable nor depressed, 43% had intractable epilepsy and were not depressed, 10% had intractable epilepsy and were depressed, and 11% did not have intractable epilepsy and were depressed. Patients with epilepsy have a higher prevalence of depression than does the general population, but the intractability of the seizure disorder does not seem to be an independent risk factor for the occurrence of depression. No relation occurs between the severity of depression and monthly seizure rate.

COMMENTARY

Depression is the most frequent comorbid psychiatric disorder in epilepsy (1,2). Its prevalence has been estimated to range between 20% and 50% of patients (3). Various studies have identified higher prevalence rates among patients with partial epilepsy of temporal and frontal lobe origin and in patients followed up in tertiary centers (4). Despite its relatively high prevalence, depression continues to be underrecognized and undertreated. One of the reasons for this phenomenon stems from a long-term misperception, by clinicians and patients alike, that their depressed mood is a *normal reaction* to the various social and personal obstacles caused by the epilepsy. Not surprisingly, patients do not think that they need to report their symptoms of depression, and clinicians do not see a need to inquire about depression or offer treatment. Yet, if depression were simply "a reactive process," patients with a higher rate of seizures would be expected to be depressed more frequently and more severely than seizure-free patients or patients with few seizures. The study by Attarian et al. shows that this is not the case. Achieving a seizure-free state of at least 6 months' duration did not protect patients from developing a depressive disorder, and seizure frequency did not correlate with the severity of depression.

Clearly, patients with intractable epilepsy are known to score worse on quality-of-life measures than do seizure-free patients. Yet various studies have demonstrated that it is the presence of depression that accounts for the poor quality-of-life ratings, independent of the seizure frequency and severity. Gilliam et al., for example, found that the presence of depression was the strongest clinical predictor of patients' assessment of their own health status in a group of 125 patients more than 1 year after temporal lobe surgery (5). Likewise, in a separate cohort of 194 patients with refractory epilepsy, the researchers ascertained a strong correlation between the Beck Depression Inventory Scores (higher scores indicate a more severe depression) and poorer ratings in the Quality of Life in Epilepsy-89 instrument (QOLIE-89). In contrast, they failed to find any correlation between the monthly seizure frequency and type (i.e., complex partial versus secondarily generalized tonic–clonic seizures) and the QOLIE-89 scores (6). Perrine et al. (7) studied 257 epilepsy patients to determine the relation of neuropsychological function to health-related quality of life. The mood factor had the highest correlation with the QOLIE-89 scales and was the strongest predictor of quality of life in regression analyses. Lehrner et al. (8) investigated 56 consecutive patients from Germany with temporal lobe epilepsy and found that depression was the single strongest predictor for each domain of health-related quality of life, even after controlling for seizure frequency, seizure severity, and other psychosocial variables.

The studies cited earlier, including that of Attarian et al., were carried out with patients from tertiary centers with chronic epilepsy. The data from these studies suggest that the presence of mood disorders may be independent of seizure frequency and severity and, more important, that the presence of a mood disorder may have a dire impact on quality of life. These data must serve as a wake-up call to all clinicians to recognize the complex relation between depression and epilepsy and to stop attributing patients' depressed moods simply to a reactive process.

Previously, various authors have discussed extensively the multifactorial relation between depression and epilepsy, including genetic, iatrogenic, endogenous, and yes, adaptive (or rather, maladaptive) processes (3,4). Furthermore, recently published studies appear to suggest a possible bidirectional interaction between epilepsy and depression that is not restricted to the chronic epilepsies. In a population-based, case–control study of patients in Sweden with *newly* diagnosed adult-onset epilepsy, Forsgren and Nystrom (9) found that a history of depression *preceding the onset of epilepsy* was 6 times more frequent among patients than in controls. In a second population-based, case–control study of the incidence of new-onset epilepsy among adults aged 55 and older, Hersdorffer et al. (10) determined that, compared with controls, patients were 3.7 times more likely to have had a history of depression preceding their initial seizure. Data from a population-based study in Iceland of children with epilepsy suggested similar results (11). Interestingly enough, 6 centuries ago, Hippocrates (12) had suggested this bidirectional relation when he wrote, *"melancholics ordinarily become epileptics, and epileptics melancholics: what determines the preference is the direction the malady takes; if it bears upon the body, epilepsy, if upon the intelligence, melancholy."*

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