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Anxiety and Mood Disorders in Psychogenic Nonepileptic Seizures

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ABSTRACT

The diagnosis of psychogenic nonepileptic seizures (PNES), particularly in patients with epilepsy, poses a special challenge to the physician in care of these patients. Psychiatric disorders (PD) are more common among patients with epilepsy than in the general population, and this appears to be even more important in patients with PNES. Depression and other mood disorders, as well as anxiety disorders – particularly panic attacks – may make the management of these patients even more difficult in the clinical practice. Concomitant psychiatric conditions have been associated with a poor outcome in patients with PNES]. Psychiatric and psychological intervention has been shown to be associated with improved outcome in PNES in outcome studies, although data is conflicting in this matter. The intricacies and practical implications of such issues are discussed.

Key words: epilepsy, psychogenic nonepileptic seizures, psychiatric disorders, anxiety.

RESUMO

Ansiedade e desordens de humor em crises não-epilépticas psicogênicas

Diagnóstico de crises não-epilépticas psicogênicas (CNEP), particularmente em pacientes com epilepsia, é de modo geral desafiador para os profissionais associados ao cuidado com estes pacientes. As desordens psiquiátricas são mais freqüentes em pacientes com epilepsia quando comparadas à população em geral, sendo ainda mais significativas em pacientes portadores de CNEP. Depressão e desordens de humor, bem como transtorno de ansiedade – particularmente os ataques de pânico – podem imputar dificuldades significativas ao manejo destes pacientes. Comorbidades psiquiátricas têm sido associadas a prognóstico mais reservado em pacientes portadores de CNEP. Intervenções psiquiátricas e psicológicas potencialmente podem melhorar o prognóstico, mas os estudos disponíveis são conflitantes. Detalhes e implicações práticas relacionadas a este cenário são apresentadas e discutidas.

Unitermos: epilepsia, crises não-epilépticas psicogênicas, desordens psiquiátricas, ansiedade.

1 PSYCHIATRIC DISORDERS IN EPILEPSY

The frequent and complex relationship between epilepsy and psychiatric comorbidity is recognized since antiquity, and the growing of systematic research in this area is currently an important aspect of epileptology.[1] Behavioural changes in epilepsy may range from depression and anxiety to psychosis, also including some specific personality traits that have previously been referred to as interictal personality disorder of epilepsy and Gastaut-Geschwind syndrome.[2] Available data support an increased risk for psychiatric disorders (PD) in epilepsy patients, indicating that it occurs in 20-40% of this population and even more frequently in patients with refractory seizures. Epilepsy confers an increased risk for emotional, behavioral, cognitive and perceptual psychopathology. There is also a well established link between psychiatric comorbidity, poor functional outcomes and impaired quality of life in this population.[1-4]

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Studies in literature highlighted temporal lobe epilepsy (TLE) patients to be at increased risk for PD compared to those with extratemporal or primary generalized epilepsies, mainly because of the limbic system involvement, an important region implied in regulation of emotions and behavior.[1-3] Other studies, however, did not find such differences.[5-7] It appears that variables other than or in addition to the localization of the epileptogenic zone are important determinants of PD, like seizure frequency, types of seizures, the number of antiepileptic drugs (AEDs) used as well as their mechanisms of action, age of onset of habitual seizures, and duration of epilepsy.[8]

The determination of accurate estimates of the prevalence of psychiatric comorbidity in epileptic patients is a difficult task. Considerable heterogeneity is encountered in distinct studies, due to a variety of factors such as the type of study, severity and chronicity of seizures, methodology applied (e.g. diagnostic instruments), population setting, and subgroup of epileptic patients studied (e.g. focal or primary generalized epilepsies).[8,9] Nevertheless, most studies in literature documented a high prevalence of PD among epilepsy patients. Mood disorders, particularly depression, are the most common (24-74%), followed by anxiety disorders including panic disorder, generalized anxiety disorder, phobias, obsessive-compulsive disorder and posttraumatic stress disorder (10-25%), psychoses (2-7%) and personality disorders (1-2%).[1,8,9] Table 1 shows a brief comparison between the prevalence of PD in epilepsy patients compared to the general population.

Table 1. Prevalence of current psychiatric disorders in epilepsy population compared to general population.

Psychiatric disorder	Epilepsy patients	General population
Mood disorders	24-74%	3.3% Dysthymia 5-17% Major depression
Anxiety disorders	10-25%	5-7% GAD 1-4% Panic disorder
Psychosis	2-7%	1-3% Schizophrenia
Attention deficit with hyperactivity	12-37%	4-12%

GAD: generalized anxiety disorder.

2 ANXIETY AND MOOD DISORDERS IN PNES

Psychogenic nonepileptic seizures (PNES) are episodes of altered movement, sensation, or experience similar to epileptic seizures, that are not caused by abnormal electrical discharges in the brain, but by psychological processes instead.[10] PNES are classified under the category of somatoform disorders in ICD-10.[11]

PNES are commonly seen at epilepsy centers, where they represent approximately 20% of patients referred for refractory seizures.[12,13] They are probably quite common in the general population, with an estimated prevalence of 2 to 33 per 100.000, making this problem nearly as common as MS and trigeminal neuralgia.[12,13] PNES are more common among female patients, that correspond to up to 80% of the cases,[14] although higher frequency of male patients has recently been reported.[15] This condition affects predominantly young patients, with a high incidence between the ages 15 to 35 years (~80%). Misdiagnosis and mistreatment of PNES are associated with high utilization of services and high costs. Clinical studies show that 10 to 25% of people with PNES also have comorbid epileptic seizures, complicating their diagnosis and treatment.[12,13,16]

Understanding the more common PNES-associated PD is essential for mental health clinicians who often find themselves faced with the daunting task of sorting out multiple coexisting psychiatric conditions in PNES patients. Determination of comorbid diagnoses may play a critical role in treatment outcome, because it is often the emotional pain created by these illnesses that is expressed via PNES, and reduction of such distress via pharmacologic and psychotherapeutic treatment can bring an immediate reduction of PNES frequency.[12,13,16]

Do patients with PNES have more PD than the general population? Despite some methodological difficulties, current literature strongly suggests that PNES patients have far more PD than do people in the general population. Studies also show high rates of past psychiatric treatment (38% to 70%) and psychiatric hospitalizations (25% to 37%) among these patients, indicating the severity of psychiatric condition of this population. The data regarding psychiatric comorbidity in PNES estimates rates between 43% and 100%. Although studies have yielded a wide range of rates and types of PD, the most frequent comorbid disorders are mood, anxiety, dissociative and personality disorders. More recent literature also showed a high prevalence of substance abuse and eating disorders.[16,17]

2.1 Mood disorders

Depression is reported more frequently than any other type of PD in PNES studies. Studies that specify DSM-IV major depression report current rates of 45% to 56%. Rates of comorbid mood disorders are generally high across the studies, with a median rate of current depression across the studies of 31%. Lifetime rates of depression are even higher (36% to 80%), reflecting the recurrent nature of depression. The 1-year and lifetime prevalence of major depression in the general population are about 10% and 17%, respectively, and the prevalence of any affective disorder are 11% and 19%, respectively.[1,13,17] Thus, the high prevalence of depression in PNES population is far

more than a chance association and suggests that clinicians should always evaluate those patients for depression. This makes sense, since this population frequently have a life of multiple or severe stress (or traumas) or have a pattern of being unable to express emotions adequately. The painful affects associated with depression add to the patient's emotional load and may contribute to having more PNES. Adequate treatment of depression may help decrease PNES because it decreases the pressure of painful feelings.[16-19]

Findings in literature also show that PNES populations have mood disorders other than major depression. Dysthymia, a chronic low-grade depression, occurs in up to 13% of subjects. Bipolar disorder also accounts for some affective disorder diagnoses, but its occurrence in PNES patients is uncommon (median 4%) and is near its 1% baseline rate in the general population. Table 2 shows a comparison between the prevalence of mood disorders in PNES patients compared to general population.[16,17]

Table 2. Prevalence of current mood disorders in psychogenic nonepileptic seizures population compared to general population.

Mood disorder	PNES patients	General population
Major depression	45-56%	5-17%
Dysthymia	13%	3.3%
Bipolar disorder	4%	0.4-1.6%
Any mood disorder	12-74%	11%

PNES: Psychogenic nonepileptic seizures.

2.2 Anxiety disorders

Most studies concerning PD in epilepsy patients have focused on depression and other mood disorders, despite the fact that anxiety may in fact be even more frequent in this population, and equally disabling.[19,20] In specialist settings caring for patients with chronic epilepsy, the prevalence of anxiety disorders may be over 50%.[19,21]

Anxiety has also been noted often among patients with PNES. This is not surprising, because PNES could be a somatic outlet for unmanageably intense feelings such as anxiety, sadness and anger. The median rate of current anxiety disorder is 18.5% across the studies. This rate, however, can be higher if we include other anxiety disorders such as posttraumatic stress disorder (PTSD) and phobias, reaching values of 33% to 47% of current diagnoses.[1,13,16,17]

The anxiety disorder most commonly mentioned in PNES studies is panic disorder, which is found in 14% to 90% of subjects. Panic attacks are characterized by sudden and severe paroxysmal episodes of anxiety of typically sudden onset and short duration, often with no clear external precipitant. Panic attacks cause symptoms (e.g., trembling, despersonalization and fear) that often are confused with partial complex seizures, so persons with panic disorders may be mistakenly diagnosed with PNES. The differential diagnosis between the three conditions – PNES, complex partial seizures and panic attacks – may be very difficult, particularly in patients with epilepsy and PD. Thus, this population should be questioned about symptoms of panic, keeping in mind the characteristics that suggest the diagnosis of panic attacks: severely altered consciousness (i.e., amnesia) is not present; panic attacks usually have a slower onset than PNES; and diaphoresis is a symptom of panic but not of PNES. Panic disorder frequently coexists with other PD, such as depression or other anxiety disorders.

These are also found in patients with PNES: PTSD (14% to 33%), generalized anxiety disorder (GAD; 9% to 47%), phobias (2% to 33%) and obsessive-compulsive disorder (OCD), a largely biologic illness, with a rate of 4%, similar to its prevalence in general population. Table 3 shows a comparison of current anxiety disorders in PNES population compared to general population.[16,17]

Table 3. Prevalence of current anxiety disorders in patients with psychogenic nonepileptic seizures compared to the general population.

Anxiety disorder	PNES patients	General population
Panic disorder	45-56%	1-4%
Posttraumatic stress disorder	14-33%	4-8%
Phobias	2-33%	5-10%
Generalized anxiety disorder	9-47%	5-7%
Obsessive-compulsive disorder	4%	2-3%

PNES: Psychogenic nonepileptic seizures

As with mood disorders, patients with anxiety disorders should receive an adequate pharmacological treatment and be referred for psychotherapy. The selective serotonin uptake inhibitor medications are efficacious for depression disorders, panic disorder, GAD, phobias, PTSD ant OCD. The association of benzodiazepines could be a short-term strategy and should be used in conjunction with seeking psychotherapy.[16-18]

3 CONCLUSION

The diagnosis of PNES, particularly in patients with epilepsy, poses a special challenge to the physician in care of these patients. PD are more common among patients with epilepsy than in the general population, and this appears to be even more important in patients with PNES. Depression and other mood disorders, as well as anxiety

disorders – particularly panic attacks – may make the management of these patients even more difficult in the clinical practice.

Concomitant psychiatric conditions have been associated with a poor outcome in patients with PNES.[22] Psychiatric and psychological intervention has been shown to be associated with improved outcome in PNES in outcome studies, although data is conflicting in this matter.[18,23] In this context, the psychiatrist and psychologist should play a key role in the management of PNES and associated PD, with adjunctive use of pharmacotherapy and psychotherapy.[24] One should keep a high level of suspicion for the diagnosis of depression and anxiety in patients with PNES, since adequate diagnosis is the first and probably the most important step for the institution of appropriate treatment, leading to improvement in the quality of life of these patients.

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