

A case report on psychogenic non-epileptic disorder

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ABSTRACT

Psychogenic non-epileptic seizure (PNES) involves attacks that act as epilepsy-related seizures. PNES is more likely to affect women than men and utmost generally begins in the youth. Epileptic seizures generally last between 30 and 120 s depending on the type, while PNES occurrences generally last for two to five twinkles. Features that are common in PNES but rarer in epilepsy include smelling the tip of the lingo, seizures lasting further than two twinkles (easiest factor to distinguish), seizures having a gradational onset, a shifting course of complaint inflexibility, the eyes being closed during a seizure, and side to side head movements. Psychotherapy is the most constantly used treatment, which might include cognitive behavioral remedy or remedy to retrain the physical symptoms and allow the existent to recapture control of the attacks. There is also some substantiation supporting picky serotonin reuptake asset antidepressants. Here, we present the case of a 45-year-old female presented with the chief complaints of giddiness in the right ear for 1 week, vomiting for 2 days, and two episodes of bilateral upper and lower body jerks. Later on, she was diagnosed with PNES.

Key words: Epilepsy, Psychogenic non-epileptic seizure, Seizures

Psychogenic non-epileptic seizure (PNES) involves attacks that act as epilepsy-related seizures due to underpinning cerebral torture. These attacks act as epilepsy-related seizures in symptoms and signs but abnormal electrical exertion in your brain does not beget them. Rather, the seizures are a physical response to underpinning cerebral torture. Mostly, PNES begins in the youth but it can start at any age. PNES is more likely to affect women than men [1]. The most common psychiatric medium is allowed to be a conversion complaint. A conversion complaint, by description, implies that the existent is not apprehensive and is not purposely pretending events. A history of sexual or physical abuse is a threat factor for the development of PNES. The prevalence of PNES is unknown. Still, in cases admitted to epilepsy monitoring units for unusual or intractable seizures, about 20–40 are diagnosed with PNES rather than ES with extended videotape-EEG monitoring. In a recent study of generalized convulsive status epilepticus, ten of the cases allowed to have benzodiazepine-refractory generalized convulsive status epilepticus who were given fresh antiepileptic medicines after arbitrated review were set up to have PNES [2].


CASE REPORT

A 45-year-old female presented with the chief complaints of giddiness, that is, spinning sensation associated with tinnitus in

the right ear for 1 week, vomiting for 2 days, and two episodes of bilateral upper and lower body jerks. She has a known case of seizure disorder, Meniere's disease for 7 years, and bilateral otosclerosis for the past 10 years. She was also diagnosed with symptomatic cholelithiasis (umbilical hernia). Comorbidities were type 2 diabetes mellitus (DM) and hypothyroidism for 7 years. She had a surgical history of ovarian cystectomy and a past medication history of T. thyroxine 50+12.5 mg once in the morning daily, T. lacosamide 100 mg H.S, and T. metformin 500 mg after food.

On general examination, her temperature was found to be 98.2°F, blood pressure as 110/70 mmHg, pulse rate as 72 beats/min, and a respiratory rate of 20 breaths/min.

Laboratory findings showed a decreased level of hemoglobin of 10.8 g/dL (normal value: 11.5–13.5g/dL) and a significant increase in HbA1c value of 7.0% (normal value: <5.7%) with an increase in erythrocyte sedimentation rate. The results of different laboratory tests were normal. Magnetic resonance imaging (MRI) circle of Willis was performed which showed multiple tiny focal non-specific non-diffusion restrictive substances, T2/FLAIR hypersensitivity in bilateral frontal and left parietal white matter possible small vessel ischemic or migraine related, no acute infarct or hemorrhage, and MRI whole spine screening report showed no significant detected; small uterine fibroid. Based on subjective and objective evidence, the patient was diagnosed with PNES disorder with type 2 DM, Meniere's disease, seizure disorder, bilateral otosclerosis, and hypothyroidism. The

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treatment chart includes Inj. piperacillin 1g IV TID, T. betahistine 16 mg BD, T. escitalopram 10 mg HS, T. levothyroxine 6.2 mg OD, T. lacosamide 100 mg BD, and T. etoricoxib 60 mg BD all for 9 days and Inj. cefuroxime 1.5 mg IV BD, Inj. pantoprazole 40 mg IV OD, Inj. paracetamol 1g IV TID, and Sup. lactulose 15 mL OD for 3 days. Moderate drug interactions were found between T. escitalopram and T. etoricoxib. Concurrent use of non-steroidal anti-inflammatory drugs (NSAIDs) and selective serotonin reuptake inhibitors (SSRIs) may result in an increased risk of bleeding as well diminishes the effect of SSRIs. But the above reactions were not noticed in this patient. The use of a gastroprotective agent such as misoprostol or a proton-pump inhibitor may reduce gastrointestinal bleeding risk. Minor interactions were found between T. levothyroxine and Inj. pantoprazole, on concurrent use, may result in decreased levothyroxine effectiveness. However, no action is required beyond standard clinical care measures [3].

DISCUSSION

PNESs which are commonly known as functional seizures, resemble ESs but do not involve the characteristic electrical discharges associated with epilepsy. Individuals with PNES experience events that closely resemble ES, making them difficult to distinguish from each other. The main difference between ES and PNES is their duration. ESs usually last between 30 and 120 s, depending on the type, while PNES can persist for 2–5 min. Some features that are more commonly observed in PNES than epilepsy include smelling the tip of the tongue, seizures lasting over 2 min (which is the most identifying factor), gradual onset of seizures, changing complaint severity, closed eyes during a seizure, and side-to-side head movements. The incidence of PNES is 1.4–4.9 cases/100,000 people/year. The prevalence of PNESs is somewhere between 1/50,000 and 1/3000, or 2–33/1,00,000 (0.002–0.033%), making it a significant rare neurologic condition [4].

Psychotherapy is the most commonly used treatment for anxiety disorders, especially cognitive behavioral therapy (CBT) or therapy that aims at retraining physical symptoms to help individuals regain control of their attacks. In addition, certain SSRI antidepressants are effective in providing relief. Jean-Martin Charcot, a French neurologist from the 19th century, coined the term “hysteroepilepsy” to describe a condition where individuals with neuroses develop symptoms resembling seizures due to being treated in the same ward as those who are truly suffering from epilepsy. In the past, the cause of FND was explained within the framework of psychoanalytic theory as a physical manifestation of mental suffering and repressed trauma [5]. PNES is seizures that resemble epilepsy but are believed to be caused by psychological factors. Unfortunately, many patients who experience these seizures are misdiagnosed as having epilepsy and are, therefore, treated with antiepileptic drugs for years. However, in most cases, a detailed medical history and ictal EEG recordings can help to correctly diagnose the condition [6].

Epilepsy is a medical condition characterized by the occurrence of at least two unprovoked seizures that occur at least 24 h apart [7]. These seizures may or may not involve violent involuntary contractions of voluntary muscles. Obtaining accurate epidemiological information for such a heterogeneous disease like epilepsy is quite problematic. Unlike most other ailments, epilepsy is episodic, which means that individuals may appear perfectly normal with normal investigations between seizures. Therefore, diagnosis heavily relies on eyewitness descriptions of the events. However, several other conditions may transiently impair consciousness and may be confused with epilepsy. Furthermore, identifying the cases of epilepsy may be a challenge since sometimes a person may be unaware of the nature of the attacks and may not seek medical help. People with mild epilepsy may not receive regular medical care and may be excluded from epidemiological surveys. Unfortunately, epilepsy is still stigmatized, which may prevent some individuals from disclosing their condition. Even in modern society, both in high- and low-income countries, fear, misunderstanding, discrimination, and social stigma continue to exist. These issues can have a negative impact on the quality of life for people with epilepsy and their families epilepsy can have a negative impact on an individual’s human rights, including access to health and life insurance, obtaining a driving license, and choosing a career. To address these issues and improve care for those affected by epilepsy, a global awareness campaign has been established. The campaign aims to provide information about epilepsy, highlight the need for collaboration between public and private sectors, and reduce the disorder’s impact [7]. PNES is characterized by non-rhythmic movements, eye closure during the event, anterior tongue biting, and a history of psychiatric disorders. Patients with PNES may also have coexisting epilepsy [8]. There is a lack of research on the relationship between psychiatric factors and episodes of PNES with and without epilepsy, even though PNES is often associated with coexisting psychiatric disorders [3]. As per DSM-5-TR, PNES is categorized as a functional neurologic disorder.

The cause of PNES is not yet fully understood and is likely influenced by multiple factors. Although various studies have shown predisposing or perpetuating factors, such as anxiety/stress, trauma, learning difficulties, and triggering illness/injury, individual presentations across pediatric patients vary widely. The exact number of cases of PNES in children is unknown, but studies suggest that it affects around 0.3–0.5/100,000 children each year [7]. Some studies have found that up to 20% of children and adolescents undergoing video-EEG monitoring may experience PNES, and up to one-third of those patients may also have epilepsy. However, psychotherapy has shown to be an effective treatment for reducing symptoms of PNES, according to various research studies.

There are various types of psychotherapy available for treating this condition. Among them, CBT is one of the most extensively researched treatment approaches to date. Exposure therapy, group therapy, and psychoeducation have also been

used [9]. PNES typically occurs in patients aged between 20 and 30 years. However, they can also affect children and the elderly. It is more common for females to be diagnosed with PNES, as three-fourths of patients are women. Although 10% of patients with PNES also have epilepsy, up to 30% of those who have both PNES and intellectual disability (ID) may experience additional ES. Half of patients with PNES report a triggering event, which may also be associated with epilepsy. Of those who reported head injury, almost 75% met the criteria for mild traumatic brain injury. Around 70% of patients with PNES also have other psychogenic disorders. It is common for people with current or previous mental health and psychosocial problems to experience PNES [10]. While there is less clear data on other comorbid brain disorders, those with an ID or head injury may be at a higher risk for PNES. However, there is no clear association between PNES and specific types of structural and functional brain lesions, suggesting that various brain disorders may predispose a patient to PNES, or that the association is mediated by additional mechanisms such as exposure to seizure models, trauma, or iatrogenism. Similarly, the finding that PNES in some patients with mixed seizure disorders sometimes ceased following successful epilepsy surgery does not imply that PNES was directly associated with ES (e.g., interictal epilepsy) [11,12].

CONCLUSION

PNES, now classified more lately as functional seizures, are events that mimic ESs but warrant the characteristic electrical discharges associated with epilepsy. Epilepsy-like seizures that are believed to be caused by psychological factors are often referred to as PNESs. Many patients who experience these seizures are misdiagnosed as having epilepsy and are, therefore, treated with antiepileptic drugs for many years. Unlike most other ailments, epilepsy is episodic, which means that individuals may appear perfectly normal with normal investigations between seizures. However, several other conditions may transiently impair consciousness and may be confused with epilepsy.

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