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Abstract

Pseudoseizures are a relatively complex problem of unknown aetiology and prognosis. They can at times resemble genuine seizure attacks but they have no abnormal electroencephalographic (EEG) activity. Understanding the patient's unique psychological background appears to be fundamental in managing seizure frequency. Pseudoseizures can be disruptive to a person's lifestyle, limiting their ability to function and progress in society, particularly when it comes to employment or social interaction. The case discussed involves a 59-year old man who presents with what is believed to be seizurerelated activity but through the course of clinical evaluation, this turned out to be pseudoseizures

Keywords

report, patient, case, pseudoseizures, experiencing

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A Patient Experiencing Pseudoseizures: A Case Report

F Joseph¹, J Quinlan²

ABSTRACT

Pseudoseizures are a relatively complex problem of unknown aetiology and prognosis. They can at times resemble genuine seizure attacks but they have no abnormal electroencephalographic (EEG) activity. Understanding the patient's unique psychological background appears to be fundamental in managing seizure frequency. Pseudoseizures can be disruptive to a person's lifestyle, limiting their ability to function and progress in society, particularly when it comes to employment or social interaction. The case discussed involves a 59-year old man who presents with what is believed to be seizure-related activity but through the course of clinical evaluation, this turned out to be pseudoseizures.

Keywords: Pseudoseizures, psychology, seizures

Paciente con Pseudo-ataques Epilépticos: Reporte de Caso

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RESUMEN

Los pseudo-ataques de epilepsia son un problema relativamente complejo de etiología y prognosis desconocidas. En ciertos momentos pueden parecer genuinos ataques epilépticos, pero no muestran actividad electroencefalográfica (EEG) anormal alguna. Entender el especial trasfondo psicológico del paciente parece ser fundamental a la hora de manejar la frecuencia de los ataques. Los pseudoataques pueden tener un efecto disociador en el estilo de vida de una persona, limitando su habilidad para funcionar y progresar socialmente, en particular cuando se trata de empleos o interacción social. El caso que se analiza corresponde a un hombre de 59 años de edad que acude con lo que se cree que es una actividad relacionada con un ataque epiléptico, pero en el curso de la evaluación clínica, resultó ser una pseudoepilepsia.

Palabras claves: Pseudoataque epiléptico, psicología, ataque

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INTRODUCTION

Pseudoepileptic seizures are paroxysmal changes in behaviour that resemble epileptic seizures but are without organic cause (1). Pseudoseizures are also known by numerous terms such as dissociative seizures, hysterical seizures, non-epileptic attack disorder, or stress seizures. In the DSM IV (2), they are referred to as somatoform disorder, most often of the conversion type. In the ICD-10 (3), the term dissociative seizure is used. The incidence is twice as frequent in

women and more often seen in younger people (4). Doctors have also noted that pseudoseizures tend to occur more commonly in front of a witness (5).

Pseudoseizures lack the abnormal changes seen in the electroencephalogram (EEG) and do not follow typical seizure activity. Back in 1885, Gowers (4) developed twelve criteria for distinguishing pseudoseizures from true epileptic seizures.

According to Gower's criteria:

- pseudoseizures can be caused by emotional disturbances,
- there is often a gradual onset,
- micturition or defaecation never occur,
- pseudoseizures often last more than half an hour.

Patients with pseudoseizures are initially treated with antiepileptic medications before a formal diagnosis is made and results can be variable (6, 7). In patients with the dis-

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order, pseudoseizures have led to unemployment, poor social outcomes and an increased cost to the health system (6).

CASE REPORT

A 59-year old man was treated in the emergency department with what was initially diagnosed as a hypoglycaemic seizure. He was brought in by ambulance after experiencing seizures in front of a friend. Based on the witness' description, they were tonic-clonic type seizures lasting five minutes with the patient conscious throughout the event. He was noted to have a blood sugar level (BSL) of 2.5 mmol/L and is a known diabetic on insulin. He has not had any previous hypoglycaemic episodes, his last HBA_{1C} six months ago was 5.0% and he was apparently compliant with his diet and insulin (long acting insulin glargine; trade name: Lantus). According to the patient, he had a cerebrovascular accident in the past, approximately two years ago and had experienced some seizure episodes, but was not on any medication as he stated that he had not sought medical evaluation. Details of his previous stroke were not available from his medical record and no previous computed tomography (CT) images were available. There was no other significant past medical history.

He was reviewed by the neurology team because he had several seizures on the ward, and was unsteady on his feet with occasional bouts of dizziness; his physical examination was normal with no neurological deficits noted at the time of his examination; his brain CT and other investigations including a full blood work-up, postictal prolactin testing and EEG were normal with no evidence of any previous stroke noted on CT. Based on the ward documentation and description of seizures as mentioned earlier and the investigation results, the neurology team was able to confirm that he did not have actual seizures and instead diagnosed him with benign positional vertigo based on the history of dizziness, nausea, positional onset and short duration of symptoms; the Dix-Hallpike test and Epley manoeuvre were done but did not provide any conclusive results. He was started on regular prochlorperazine with some improvements in symptoms noted. His BSL was stable during his acute inpatient admission. He was not started on any antiepileptic medications before his transfer to our rehabilitation unit.

The rehabilitation goals were to improve his mobility and safety, organize a psychological review and to monitor and maintain his medical stability. It was noted on the ward that he would have pseudoseizure episodes when he encountered stress or anxiety. For example, when he found out his wife was to undergo a biopsy for a breast lump, he experienced more pseudoseizure episodes. These episodes were self-limiting, lasting between five to fifteen minutes, they might be tonic-clonic type activity or just the twitching of his arm and they always occurred in front of someone. There was no loss of consciousness or sphincteric disturbance noted. The rehabilitation doctors ensured all his questions were addressed and all medical issues were reviewed regularly. The multidisciplinary team was briefed on how to

approach him in a positive manner without preconceived judgments and to take all seizure episodes seriously. His assessment of mobility and safety included a medical physical examination, physiotherapy assessment (Berg's Balance test, Time Up and Go test *etc*) and occupational therapy functional assessment; all of which had no significant deficits.

The patient freely admitted that the stress and anxiety that he experiences has grown progressively worse over the last few years, alongside a marked increase in seizure frequency. He was reviewed by the rehabilitation psychologist, who discussed the warning signs of any seizures and how to monitor them. He was aware of the psychological component to these seizures and was keen to work on strategies to overcome them.

In further reviews, he discussed his childhood experiences, and the development of dysfunctional beliefs related to his parents' high expectations of him. This formal conditioning led him to aim high and please others, the failure of which leads to anxiety, which in turn triggers his pseudoseizures. Part of his treatment involved educating him about the panic cycle, and helping him to develop coping strategies for upsetting thoughts and anxiety episodes. Ideally, a greater understanding of the panic and anxiety process will help the patient to better control his thought processes, and therefore lessen the frequency of his pseudoseizures.

A psychiatric review supported the psychologist's management strategy, and concurs that the patient's childhood experiences may have amplified his current problems. There will be no further input from their point-of-view, although if circumstances change they may become involved once more.

He was discharged with the aim of seeking private counselling services and avoiding the hospital system as much as possible, in order to downplay the sick role as suggested by the psychologist. He had improved from a mobility point-of-view with almost no seizure activity in his last few weeks in hospital. He will be followed in the rehabilitation outpatient clinic to monitor his medical issues as well as review his fitness to find employment and gain driving skills.

DISCUSSION

While we do not understand the specific pathology or triggers of pseudoseizures, we still need to appreciate that it can be a debilitating problem. Although there is a significant correlation between psychiatric problems and pseudoseizures, there is no clear mechanism to show cause and effect. There is a pattern of psychiatry co-morbidity such as somatization, anxiety, phobic anxiety, interpersonal sensitivity and depression (1). This is consistent with the data in other related literature (5, 7, 8).

Dissociative disorder appears to be the fundamental psychiatry disease associated with pseudoseizures (1). There are several key criteria that link dissociative disorders and pseudoseizures, such as severe psychological trauma (espe-

cially physical and sexual abuse), episodic disturbance in memory and perception, personality disorder, post-traumatic stress disorder, or a history of affective disorder (1, 9).

Appreciating the numerous psychological factors involved in triggering a pseudoseizure appears to be the key component in managing this disorder. There is also the initial need to exclude organic causes of seizures. There is not always a clear demarcation, as a significant portion of patients who suffer pseudoseizures also have epilepsy (5).

The use of psychotherapy (5, 6) and regular counselling appears to be the most effective approach. Often this will continue for an extensive period of time after discharge. The main aim is to assist the patient with coping and managing the underlying psychological pathology. However, there is a need for a more focussed trial to be developed with larger sample sizes and standardized psychological assessment with treatment.

Shen *et al* outlined a protocol for explaining the diagnosis of pseudoseizures to patients (10). This protocol, while not applied to the patient in the case study, appears to be a crucial component in bonding with future patients and guiding their treatment. The protocol involves explaining that the seizures are non-epileptic and there is no evidence of brain damage. Terms such as 'psychogenic' and 'pseudoseizures' are avoided unless the patient themselves bring it up. The role of the doctor is to provide the positive aspects of the diagnosis, such as the need to cease taking antiepileptic drugs, hence relieving the patients of their associated side effects. The negative issues also have to be addressed, for example, the difficulty in explaining the true cause of such seizures, and the key role of transitioning from a physician and medical management to the care of a psychologist. The protocol suggests that doctors should provide advice on the role of psychotherapy and educational material, in order to highlight the legitimacy of the disorder. The complex issues

with regards to diagnosis, treatment and prognosis should also be clearly explained. Finally, encouraging the patient to think positively, and suggesting that the seizures will abate over time, should aid recovery.

The psychiatrist plays a key role by first ensuring all organic causes have truly been excluded, explaining to patients and their family the likely treatment options, answering their questions, being a positive force and influence, educating other members of the multidisciplinary rehabilitation team, coordinating, assessing physical and functional limitations such as mobility and self-care as well as encouraging the role of psychotherapy, while also monitoring the patient to ensure real seizures are not missed.

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