CASE REPORT

THE PATIENT
27-year-old woman

SIGNS & SYMPTOMS
- Postpartum seizures
- Posttraumatic stress disorder
- History of depression

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THE CASE

A 27-year-old woman presented to the family medicine clinic to establish care for a recent onset of seizures, for which she had previously been admitted, 4 months after delivering her first child. Her pregnancy was complicated by type 1 diabetes and poor glycemic control. Labor was induced at 37 weeks; however, vaginal delivery was impeded by arrest of dilation. An emergency cesarean section was performed under general anesthesia, resulting in a healthy newborn male.

Six weeks after giving birth, the patient was started on sertraline 50 mg/d for postpartum depression. Her history was significant for depression 8 years prior that was controlled with psychotherapy, and treated prior to coming to our clinic. She had not experienced any depressive symptoms during pregnancy.

Three months postpartum, she was hospitalized for recurrent syncopal episodes. They lasted about 2 minutes, with prodromal generalized weakness followed by loss of consciousness. There was no post-event confusion, tongue-biting, or incontinence. Physical exam, electroencephalogram (EEG), echocardiogram, and magnetic resonance imaging of the head and neck demonstrated no acute findings.

These episodes escalated in frequency weeks after they began, involving as many as 40 daily attacks, some of which lasted up to 45 minutes. During these events, the patient was nonresponsive but reported reliving the delivery of her child. Upon initial consultation with Neurology, no cause was found, and she was advised to wear a helmet, stop driving, and refrain from carrying her son. No antiepileptic medications were initiated because there were no EEG findings that supported seizure, and her mood had not improved, despite an increase in sertraline dosage, a switch to citalopram, and the addition of bupropion. She described anxiety, nightmares, and intrusive thoughts during psychotherapy sessions. Her psychiatrist gave her an additional diagnosis of posttraumatic stress disorder (PTSD) secondary to her delivery. The family medicine clinic assisted the patient and her family throughout her care by functioning as a home base for her.

Eight months following initial symptoms, repeat evaluation with a video-EEG revealed no evidence of EEG changes during seizure-like activity.

THE DIAGNOSIS

The patient was given a diagnosis of psychogenic nonepileptic seizure (PNES) by a neurologist experienced in diagnosing both epilepsy and PNES. The physician made the diagnosis after noting that the seizures on video had no corresponding epileptiform activity on EEG. This represents a "documented" diagnosis, the highest level of confidence possible in diagnosing PNES, as reported by the International League Against Epilepsy Nonepileptic Seizures Task Force.[1]

TABLE

Suggested role of the primary care physician in suspected psychogenic nonepileptic seizures

Evaluation	• Evaluate other potential differentials – Rule out metabolic causes – Rule out head and neck masses with imaging – Rule out cardiogenic causes – Rule out epilepsy with EEG ○ Add 24-hour video EEG if first is negative • Acquire psychiatric history and explore psychologic disposition – Evaluate for suicidal ideation, intent, or plan
Anticipatory guidance	• Provide seizure precautions (eg, wearing a helmet to reduce risk of head trauma, avoidance of operating a motor vehicle, avoidance of swimming without supervision)
Specialist considerations	• Psychiatry • Psychology • Neurology • Social work, as needed, for additional resources
Suggested treatment/management	• Consider medications (eg, antidepressants, anxiolytics) that are dependent upon underlying psychiatric conditions • Complete disability paperwork • Consider CBT • Make referrals for appropriate therapies provided by other practitioners (eg, CBT, ECT, eye movement desensitization and reprocessing therapy) • Schedule frequent and regular follow-up appointments

CBT, cognitive behavioral therapy; ECT, electroconvulsive therapy; EEG, electroencephalogram.

DISCUSSION

With a prevalence of 5% to 10% and 20% to 40% in outpatient and inpatient epilepsy clinics respectively, PNES events have become of increasing interest to physicians.[2] There are few cases of PNES in women during pregnancy reported in the literature.[3,4] This is the first case report of PNES with postpartum onset.

Epilepsy vs psychogenic nonepileptic seizures

PNES episodes appear similar to epileptic seizures, but without a definitive neurobiologic source.[2,3] However, recent literature suggests the root cause may be found in abnormalities in neurologic networks, such as dysfunction of frontal and parietal lobe connectivity and increased communication from emotional centers of the brain.[2,5] There are no typical pathognomonic symptoms of PNES, leading to diagnostic difficulty.[2] A definitive diagnosis may be made when a patient experiences seizures without EEG abnormalities.[2] Further diagnostic brain imaging is unnecessary.

Trauma may be the underlying cause

A predominance of PNES in both women and young adults, with no definitive associated factors, has been reported in the literature.[2] Studies suggest childhood sexual abuse, physical abuse, traumatic brain injury, and health-related trauma, such as distressing medical experiences and surgeries, may be risk factors, while depression, misdiagnosis, and mistreatment can heighten seizure activity.[2,3]

CONTINUED

Treatment requires a multidisciplinary team

Effective management of PNES requires collaboration between the primary care physician, neurologist, psychiatrist, and psychotherapist, with an emphasis on evaluation and control of the underlying trigger(s).[3] Randomized controlled trials have demonstrated the efficacy of cognitive behavioral therapy (CBT), supportive care, and patient education in reducing seizure frequency at the 6-month follow-up.[3,6] Additional studies have reported the best prognostic factor in PNES management is patient employment of an internal locus of control—the patient's belief that *they* control life events.[7,8] Case series suggest electroconvulsive therapy (ECT) is an effective alternative mood stabilization and seizure reduction therapy when tolerated.[9]

Our patient tried several combinations of treatment to manage PNES and comorbid psychiatric conditions, including CBT, antidepressants, and anxiolytics. After about 5 treatment failures, she pursued ECT for treatment-resistant depression and PNES frequency reduction but failed to tolerate therapy. Currently, her PNES has been reduced to 1 to 2 weekly episodes with a 200 mg/d dose of lamotrigine as a mood stabilizer combined with CBT.

THE TAKEAWAY

Providers should investigate a patient's history and psychologic disposition when the patient presents with seizure-like behavior without a neurobiologic source or with a negative video-EEG study. A history of depression, traumatic experience, PTSD, or other psychosocial triggers must be noted early to prevent a delay in treatment when PNES is part of the differential. Due to a delayed diagnosis of PNES in our patient, she went without full treatment for almost 12 months and experienced worsening episodes. The primary care physician plays an integral role in early identification and intervention through anticipatory guidance, initial work-up, and support for patients with suspected PNES (**TABLE**). JFP

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