Case Report

Acute Onset of Non-Epileptic Psychogenic Seizures in a Patient with Chronic Intractable Epilepsy

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Abstract

We describe a case report of a young woman with long-standing epilepsy since childhood. She has failed three resective surgeries, anterior left temporal lobectomy, complete total lobectomy and frontal resection. Pharmacologically, she has had a therapeutic trial of most of the marketed medications, including the vagal nerve stimulator. She remains intractable with two to three seizures per week on gabitril, tegretol, and vagal nerve stimulator. This has been the best control for more than a decade.

She was seen in our epilepsy clinic with an increased frequency of seizures ranging from 10-20 per day requiring frequent emergency room and clinic visits. A careful history revealed that the presentation of the spells was atypical. Her usual episodes were characterized by head shaking, confusion, electrical sensation in the head and periods of whole body shaking with no postictal state.

She was admitted in our epilepsy monitoring unit and intensive video EEG monitoring was performed over a four-day period. We were able to capture all of her spells, revealing no electrographic seizures.

The diagnosis of psychogenic non-epileptic spells (PNES) was made with follow up with psychiatry. Our case report emphasizes the importance of intensive video EEG monitoring in patients with a well-established diagnosis of epilepsy. The idea is to diagnose new, onset frequent atypical events prompting the need for frequent emergency room and clinic visits and hospital admissions.

INTRODUCTION

This case report addresses the challenges that physicians and psychologists deal with when patients with epileptiform seizures develop non-epileptic psychogenic spell (PNES).

Psychogenic seizures are a form of conversion disorder during which patient’s exhibit seizure like activity; but the brain waves are normal. Diagnostic dilemma arises when patients with established diagnoses of epilepsy develop PNES. Patients with PNES often have a history of an abusive past and/or other psychiatric disorders. A careful history is important to detect non-stereotypical spells. If the patients have non-stereotypical events; intensive video EEG monitoring in an epilepsy-monitoring unit is the gold standard to capture new spells for definitive diagnosis to rule out PNES.

CASE REPORT

We describe a 32-year-old Caucasian woman with intractable epilepsy with seizure onset at the age of 2 years. She failed several anticonvulsants including Felbatol; Dilantin; Phenobarbital; Klonopin; Keppra; Topamax; Depakote; Lyrica; vimpat and Zonegran.

She was diagnosed with complex partial seizures at age 9 years of left temporal onset and underwent left anterior temporal lobectomy. Surgery failed and she continued to have seizures. Two additional surgeries; including a left total temporal lobectomy and frontal cortical resection; were performed; but failed to control the frequency of seizures, a vagal nerve stimulator was placed due to refractory seizures at the age of 18 years. She tolerated tegretol and Gabitril with VNS. This was the
At the age of 32 years; after multiple surgical procedures for intractable epilepsy (lobectomy; cortical resection; VNS placement); our patient’s seizure semiology (type) and frequency changed; raising the question of inadequate control versus psychogenic seizures. Her typical seizures for more than a decade had no definite warning; and during the episodes; which lasted several minutes; she would remain conscious but confused while walking about and/or running and yelling; sometimes exhibiting destructive behaviors. She has cut the phone cord; pulled blinds from the windows around the house and has even tried to exit a moving car several times. Following these episodes; she is very tired and/or confused for 30-120 minutes. The new spells on careful history occur on a daily basis which were preceded by an aura described as “an electrical sensation radiating to her forehead and a feeling that her brain was shaking from inside.” These sensations are followed by forceful side to side head movements; confusion and at times total body jerking lasting for several minutes. The combination of atypical side-to-side head shakes; dramatic increase in frequency; and other new features; including an aura; raised the question of psychogenic seizures and she was admitted to our EMU for differentiation. The EEG monitoring is consistent with interictal expression of partial epilepsy in the setting of moderate generalized nonspecific cerebral dysfunction. Fifteen stereotypical new episodes characterized by head shaking and; at times; involving the whole body and lasting for 2-5 seconds; were captured that were not associated with an EEG correlate (Figure A). The secondary diagnosis of conversion disorder was confirmed. She and her family was educated on new diagnosis and she was discharged with referral for evaluation by psychiatry. She will continue to be managed on current AEDs and will be followed by an epileptologist and a psychiatrist which has resulted in improvement of her condition.

**DISCUSSION**

Many primary care practitioners and general neurologist manage established epileptic patients. When a patient has failed 2 or more appropriate AEDs for adequate amounts of time (refractory); has a change in characterization of spell; increase in seizure frequency or atypical response to management; the PCP or neurologist should consider referral for extended video EEG (VEEG) monitoring. The prolonged video –EEG monitoring in an epilepsy monitoring unit still remains the gold standard to characterize all events for definite diagnosis. The literature review revealed that 10 to 40 % of patients with PNES also have true epilepsy [1-5]. There is also evidence of interictal epileptiform abnormalities in patients with psychogenic nonepileptic spells (PNES); but they should not be interpreted as evidence of epilepsy [6]. Benbadis and colleagues performed a retrospective chart review study to determine the proportion of patients with psychogenic nonepileptic seizures (PNES) who also have evidence of epilepsy and concluded that epilepsy coexists with PNES in a small portion of patients [7]. Martin and colleagues also reviewed charts from the epilepsy monitoring unit of patients admitted to the University of Alabama from 1998 to 2002 and found out that 1; 590 patients received a definitive diagnosis and were included in the study of 2; 007 patients receiving video-EEG monitoring. PNES was diagnosed in 514 patients with 29 of these patients (5.3%) having both PNES and epilepsy. Other than PNES; nonepileptic diagnoses occurred in 65 patients (3.2%); including sleep disorders; migraine; panic attacks; dysautonomia; movement disorders; TIA; cough syncope and vestibular symptoms [8]. PNES fall under the Conversion Disorder DSM-5. The criteria of which includes one or more symptoms of altered voluntary motor or sensory function. Clinical findings provide evidence of incompatibility between the symptom and recognized neurological or medical conditions; the symptom or deficit is not better explained by another medical or mental disorder; the symptom or deficit causes clinically significant distress or impairment in social; occupational; and other important areas of functioning or warrants medical evaluation and specific symptom type; which is in this case is
with attacks or seizures[9]. The reason for the dual diagnosis of epilepsy and PNES is the development of psychiatric problems in patients with chronic long standing epilepsy or the presence of concomitant psychiatric disorders. Most of the patients have are fairly under control as far as epileptic seizures are concerned but develop PNES. They still representa difficult group of patients regarding management[10-12].

REFERENCES