

Dacrystic Seizures and Psychogenic Non-Epileptic Seizures: A Case Report

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Abstract

Dacrystic seizures are rare clinical occurrences characterized by paroxysmal stereotyped crying with a special challenging differential diagnosis with psychogenic non-epileptic seizures (PNES). We present a report of a male 21-year-old patient with history of schizophrenia, agitation crises and apparent seizures comprising a myriad of consciousness, motor, visual and autonomic manifestations. The patient began to smoke cannabis at age 15 and at age 18 smoked crack for 6 months. The seizures began at approximately this time and were incapacitating. In intercritical periods, he was friendly, communicative and displayed hysterical personality traits, but examination indicated no negative or positive symptoms when abstinent. Cognitive assessments revealed presence of intellectual deficiency (current $QI=75$). During hospitalization, the patient was extensively examined, and the diagnosis of schizophrenia was ruled out. All antipsychotic drugs were gradually tapered off. Video-EEG monitoring captured a prolonged seizure compatible with a dacrystic seizure. A cranial MRI scan revealed discrete diffuse cerebral atrophy. Carbamazepine was introduced and titrated until 1,600 mg/day and patient has been seizure-free for about 12 months. This case illustrates the importance of differential diagnosis of putative psychogenic seizures. This is the first report of dacrystic epileptic seizures associated with PNES and comorbid abuse of crack.

Keywords: Dacrystic seizures; Lacrimation; Psychogenic non-epileptic seizures

Introduction

There are few reports in the literature informing the difficulty in making the differential diagnosis between dacrystic seizures and psychogenic non-epileptic seizures (PNES) [1,2]. The differentiation between dacrystic seizures and PNES can be very difficult from the point of view of symptomatology of psychiatric symptoms. The presentation of dacrystic seizures has common elements with PNES and it is possible that the patient has both types of crisis. Dacrystic seizures are rare clinical occurrences characterized by sudden lacrimation, grimacing, sobbing, sad facial expression and yelling, with a special challenging differential diagnosis with psychogenic non-epileptic seizures (PNES) [1,2].

Case Report

Here, we present a report of a male 21-year-old patient that was admitted in our institution with a diagnosis of schizophrenia and agitation crises. The seizures began with mental confusion, vigorous muscle contraction, assuming opisthotonic position, self-aggression, intense screaming, crying, upward stare, visual hallucinations, and paleness, eventually leading to cyanosis and sphincter release. During these episodes, heart frequency reached 237 bpm, and blood pressure fell as low as 96x34 mmHg. The postictal period was characterized by mild mental confusion.

In intercritical periods, the patient was friendly, communicative, displayed no negative symptoms, paranoid or hallucinatory behaviors. The patient displayed hysterical personality traits and was very dependent on his mother. Cognitive assessments revealed the presence of intellectual deficiency (current $QI=75$).

He began to smoke cannabis at age 15, at which point he had his first psychotic episode. At age 18, the patient smoked crack for a period of 6 months, with an average frequency of 3 times per month. The agitation crises began at approximately this time, and the symptoms were so incapacitating that the patient's family was forced to place him in a "live-in clinic."

When admitted to our inpatient unit, the patient was using valproic

acid 1,500 mg/day, phenytoin 300 mg/day, topiramate 200 mg/day, olanzapine 10 mg/day, risperidone 2 mg/day, clonazepam 4 mg/day and biperiden 2 mg/day, with partial seizure control.

During hospitalization, the patient was extensively examined, and the diagnosis of schizophrenia was ruled out. All antipsychotic drugs were gradually tapered off.

Video-EEG monitoring captured a prolonged seizure, which was accompanied by unmotivated screaming, clonic spasms of the upper right limb, lateral head movements (mostly to the left), and intermittent automatic movements of the upper left limb. As the seizures progressed, the patient began to cry, and lacrimation was observed. This clinical manifestation was accompanied by rhythmic apical activity at a frequency of 7 Hz, which began in the temporal regions of both hemispheres before increasing in frequency and quickly spreading to all regions of the scalp. The total duration of the ictal EEG discharges was 4 minutes; however, clinical manifestations continued for slightly longer. A 1.5 Tesla cranial MRI scan revealed discrete diffuse cerebral atrophy (Figure 1).

The valproic acid was substituted by carbamazepine, this was increased until 1,600 mg/day. Patient was discharged on July 16, 2013, and had been seizure-free for about 10 months, until the time of this writing.

Discussion

This case illustrates the importance of the differential diagnosis of probable psychogenic seizures. We hypothesize that his seizures were

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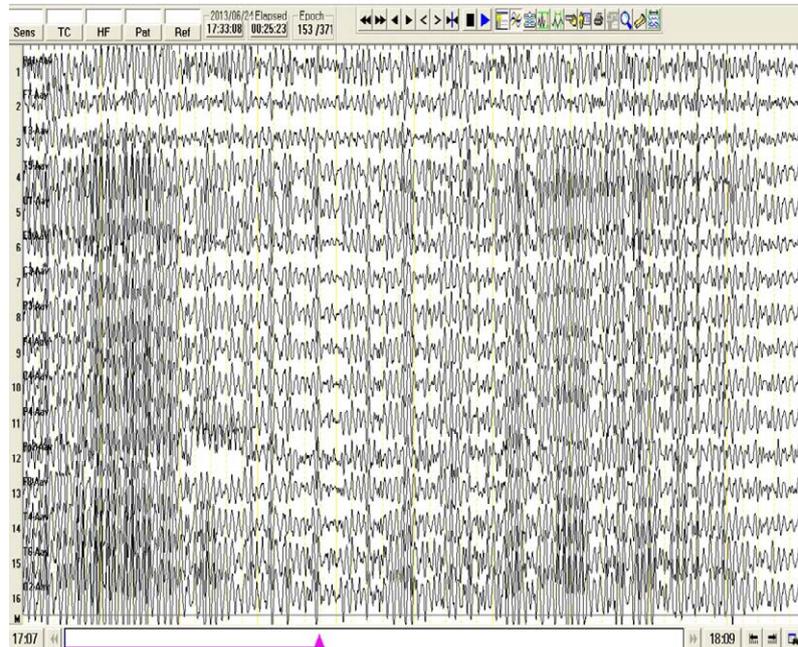


Figure 1: Ictal EEG. Please note the diffuse generalized discharge, with evolution in frequency and topographic distribution, in a waxing and waning fashion. Tracing is clearly distinct from background activity, recorded at the beginning of exam. LF: 0.3 Hz; HFF: 30 Hz.

caused by molecular dysfunctions in limbic system neurons caused by the abuse of crack [3]. This theory is supported by the chronological order of the patient's life events and the onset of his symptoms [4-6]. Dacrystic seizures are often underdiagnosed and are still not well understood [7-10]. Their treatment may involve the administration of high doses of anticonvulsant drugs. To find therapeutic dose parameter should not be the serum reference, because it is possible patients respond only at higher doses [8,10]. The clinician should be guided by not tolerable side effects. Psychogenic non-epileptic seizures are commonly seen in psychiatric hospitalizations in female patients. In recent study, gender difference in PNES seizure semiology was associated with whether or not clinically significant somatic symptoms were present; males with elevated somatic symptoms were much more likely to have motor PNES [11]. In this case, the patient had no history of somatic symptoms, so we tried to intensively investigate neurological causes.

Conclusion

This is the first report of dacrystic epileptic seizures associated with PNES and comorbid with the abuse of crack. Dacrystic seizures are rare clinical occurrences but may occur in young patients. The clinical presentation may include young patients seeking care for psychiatric symptoms. The use of drugs such as crack can be one of the triggers of dacrystic crises. This should be investigated in further studies in addition to case reports.

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