

Case Report

A CASE REPORT OF DACRYSTIC SEIZURES PRESENTING WITH PSYCHOSIS

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ABSTRACT

Dacrystic seizures present with sudden bursts of crying and often manifest with comorbid psychiatric symptoms. Here, we present the case of a 27-year-old female with an 11-year history of stereotyped patterns of crying spells, associated with fearfulness, suspicions, hallucinatory behaviour, recurrent suicidal gestures and impairment in functioning. She was treated mostly with antipsychotics, antidepressants and mood stabilizers (for a brief period) irregularly, without adequate improvement. She presented with catatonia, hypokalemia and aspiration pneumonia, following default of medications for one month. With appropriate treatment, her physical condition became stable, when short lasting bouts of recurrent crying spells were observed, followed by confused behaviour and sleep, along with delusions and hallucinations. Her EEG showed epileptiform discharges; brain imaging was normal. She showed good response to anticonvulsants along with antipsychotics. Such unusual presentations of epilepsy and comorbid psychiatric symptoms warrant a high index of suspicion, for proper diagnosis and management.

Keywords: dacrystic seizures, epileptic crying, psychosis

INTRODUCTION

Dacrystic seizures are epileptic seizures with a sudden burst of crying with no apparent cause. The semiological features include sudden bursts of crying, lacrimation, grimacing, sobbing, sad facial expression, yelling and feelings of sadness which occur in a stereotyped pattern.¹ The term 'dacrystic epilepsy' was proposed for this rare type of

seizure disorder by Offen et al. (1976) from the Greek word '*dakryon*' meaning tear.² In a retrospective, descriptive study conducted at five tertiary epilepsy referral centres, the frequency of dacrystic seizures was found to be 0.13%, with a range of 0.06% to 0.53%.³ Gelastic seizures, another rare form of epilepsy, characterized by bouts of laughter, can co-occur with dacrystic seizures and is

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commonly associated with hypothalamic hamartoma.⁴ Patients with dacrystic seizures can often present with comorbid behavioural and psychiatric problems like major depressive or anxiety disorders commonly, and rarely psychosis and personality disorders. Here we discuss a case of dacrystic seizures which presented with psychotic symptoms and catatonia.

CASE REPORT

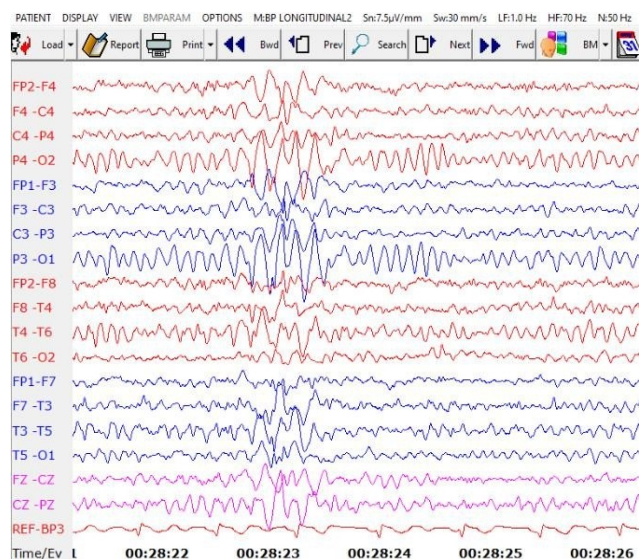
Ms R, a 27-year-old, eighth standard educated, unmarried, unemployed female presented to the casualty of a tertiary care centre with a history of continuous psychiatric illness of 11 years duration for which she was on treatment with Tab. Clozapine 300 mg/day, Tab. Aripiprazole 20 mg/day and Tab. Lorazepam 2 mg/day. Her medicines were unsupervised for past two months, following which she was having progressive worsening of impaired sleep, reduced food intake, poor self-care and social interactions, fearfulness, suspicions, muttering and pacing around slowly for past one week. She was mostly bedridden with decreased responsiveness and involuntary micturition for the past two days. Her food intake deteriorated, and she also had vomiting. On mental status examination, she was conscious but mute and apathetic. Posturing was observed. On physical examination, she was found to be poorly built and nourished (Body Mass Index—16.6). Vitals were stable and systemic examination was within normal limits at the time of admission. Her blood investigations, including complete blood count, random blood sugar, thyroid function test, liver function tests, renal function tests, and fasting lipid profile, were within normal limits. On the day of admission, she developed

fever, followed by altered consciousness, tachypnoea and tachycardia.

Further, investigations revealed hypokalemia (S. Potassium-2.9 meq/L). General Medicine consultation was done, and she was diagnosed with aspiration pneumonia. She was started on IV antibiotics (Cefotaxime and Metronidazole) which was continued for seven days. For hypokalemia, she was started on oral potassium chloride 30 ml thrice daily with which serum potassium levels reached up to 3.4 mEq/ L. Her fever subsided, but on reducing oral potassium chloride, hypokalemia persisted, and hence it was continued. Further evaluation revealed elevated Fasting S. cortisol and 24-hour urine potassium. Endocrinology consultation was done to rule out causes for hypokalemia, but other investigations (24-hour urine cortisol, urine calcium, urine chloride and urine potassium) were found to be inconclusive; no aetiology could be identified. As her respiratory symptoms improved, she was started on Tab. Lorazepam and dose increased up to 3 mg/day, with which her catatonic symptoms improved. Then, she was started on Tab. Clozapine 25 mg/day. On serial evaluation, she was found to have poor rapport, scanning eyes and reduced psychomotor activity. She expressed delusion of persecution and auditory hallucinations but was guarded and evasive. Along with this, it was observed that she had recurrent episodes of crying spells that lasted for a few minutes when she would not be in touch with the surroundings. When her mother tried to pacify her, she would show aggressive outbursts, followed by confused behaviour and then sleep off for almost half an hour.

Her illness had begun eleven years back, with stereotyped bouts of crying spells and yelling aloud, which were of fluctuating frequency.

Fig.1. EEG showing bilateral posterior spike-and-wave discharges



This was associated with impaired vegetative function, fearfulness, suspiciousness and hallucinatory behaviour. She was socially withdrawn, poorly communicative and had multiple suicidal gestures. There was no anhedonia, fatigue, expressing depressive ideas or elevated self-esteem, overactivity, over talkativeness or any other history suggestive of organicity. She had received various antipsychotics (including Tab. Olanzapine 25 mg/day, Tab. Amisulpride 200 mg/day, Tab. Risperidone 2 mg/day, Tab. Quetiapine 300 mg/day), antidepressant (Tab. Escitalopram 10 mg/day), mood stabilizers (Tab. Carbamazepine 800 mg/day) and Tab. Clobazam 10 mg/day for a brief period when seizure disorder was suspected, at different periods, but adherence was poor, and the response was inadequate.

She had been diagnosed with bronchial asthma and was on regular medications during the previous admissions. Mental retardation was reported in her third degree relative, but family history was otherwise not significant. Her developmental milestones were normal but academic performance was poor. Temperamentally she was an easy child.

Neuromedicine consultation was done for her repeated crying spells. MR imaging study of the brain was normal, but EEG showed single posterior dominant bilateral spike and wave discharge of 6 Hz. (See Fig.1.) A diagnosis of Complex Partial Seizures was made; she was started on Tab. Sodium Valproate and the dose optimized to 1500 mg/day. At discharge, she was on Tab. Clozapine 75 mg/day, Tab. Risperidone 2 mg/day and Tab. Escitalopram 10 mg/day, along with antiepileptic. The frequency of her crying spells was reduced. Her vegetative functions, social interactions and affective responses improved with treatment, but hypokalemia persisted. She was discharged with a diagnosis of Organic delusional (Schizophrenia-like) Disorder, Complex Partial Seizures, Hypokalemia and Aspiration pneumonia. On follow-up from General Medicine department for hypokalemia, she was maintained on potassium chloride. After six months, she was on Tab. Sodium Valproate 1500 mg/day, Tab. Clobazam 5 mg/day, Tab. Clozapine 150 mg/day and Tab. Escitalopram 10 mg/day. Her crying spells were almost completely absent. There was a significant reduction in psychotic symptoms, and her level of social and occupational functioning also improved.

DISCUSSION

Some experiences or phenomena associated with epilepsy, including gelastic-dacrystic

seizures, may be misinterpreted as primary psychiatric disorders like major depressive disorder, anxiety disorder or rarely psychotic disorder.⁵ Those with gelastic-dacrystic seizures who are cognitively normal before the onset of seizures, often develop behavioural and psychiatric symptoms, including major depressive and anxiety symptoms, and rarely psychosis and cognitive impairment.⁶ Dacrystic seizures, characterized by crying, are rare among patients with epilepsy.

In this case, the patient presented with a history of recurrent brief crying spells associated with aggressive bouts, followed by confusion and sleep. There were no predominant, pervasive mood changes; she was mostly apathetic. Following the default of medications, she developed catatonic features. After admission, she developed aspiration pneumonia and persistent hypokalemia (the cause of which could not be identified). With appropriate management, her general condition improved when the stereotyped bouts of crying spells became evident. EEG showed bilateral epileptiform discharges of posterior origin. Other investigations were normal. She was started on antiepileptic medication and the dosage optimized. Considering the risk of worsening of seizures with Clozapine, on which she was maintained, the dose of the same was reduced. Her crying spells and psychiatric symptoms responded to this regimen, and she showed improvement on follow-up.

Outbursts of involuntary and uncontrollable laughing or crying may be seen in various organic conditions, like vascular, degenerative or demyelinating diseases of the brain. Unlike epileptic crying, pathological crying is usually precipitated by events occurring in the external

environment; the patient is neither unresponsive nor amnesic about the event, and they do not respond to anticonvulsant therapy.² In this case, the stereotyped crying spells were not in response to any external event; the patient was unresponsive and amnesic about the event, and she responded to anticonvulsant medication.

When dacrystic seizures are associated with gelastic seizures, the most common aetiology is hypothalamic hamartoma. When gelastic seizures are not present, the most frequent cause implicated for dacrystic seizures is a cortical lesion, especially of temporal or frontal lobe origin.³ In this case, there were no features of gelastic seizures, and MRI Brain was normal. But the semiology of crying spells, followed by aggressive bouts, while not being in touch with surroundings, suggested the involvement of temporal lobe. EEG abnormalities were suggestive of posterior lobe involvement. A retrospective review of Video-EEG reports had concluded that dacrystic seizures do not provide clinical value in predicting the epileptogenic zone.¹

This patient also presented with comorbid psychotic symptoms for 11 years, which was resistant to treatment and developed catatonic features on default of antipsychotic medications. She had normal developmental milestones but had poor scholastic performance, which suggests cognitive worsening associated with epilepsy. She was managed symptomatically and responded to treatment. A diagnosis of organic delusional (schizophrenia-like) disorder was made because the onset of psychotic symptoms had a temporal correlation with the onset of seizure phenomenon (i.e., crying spells). Moreover, once the dacrystic seizures responded to the

optimization of anticonvulsant medications, her psychotic and behavioural symptoms, which had been resistant to treatment with antipsychotics alone, showed an improvement, with subsequent improvement in functioning.

CONCLUSION

Dacrystic seizures are rare clinical occurrences which can manifest with psychiatric symptoms. It can often be mistaken for symptoms of psychiatric illnesses such as depression or psychosis. A high index of suspicion is warranted for proper diagnosis and management. This patient was not responding to treatment with antipsychotics alone. Following the diagnosis of dacrystic seizures and management with anticonvulsant medications along with antipsychotics, there was an improvement in her symptoms and level of functioning.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Asadi-Pooya AA, Wyeth D, Sperling MR. Ictal crying. *Epilepsy Behav* 2016; 59:1–3.
2. Offen ML, Davidoff RA, Troost BT, Richey ET. Dacrystic epilepsy. *J Neurol Neurosurg Psychiatry* 1976; 39:829–34.
3. Blumberg J, Fernandez IS, Vendrame M, Oehl B, Tatum WO, Schuele S, et al. Dacrystic seizures: Demographic, semiological, and etiological insights from a multicenter study in long-term video-EEG monitoring units. *Epilepsia* 2012;53(10):1810–19.
4. Verma R, Praharaj HN. Reflex gelastic-dacrystic seizures following hypoxic-ischaemic encephalopathy. *BMJ Case Reports* 2013: bcr2013010506. Available from: <http://dx.doi.org/10.1136/bcr-2013-010506>
5. Mangas MD, Martins Y, Bravo L, Pires AM. Misdiagnoses of epilepsy as Ekbom syndrome, mood instability, and nocturnal visual hallucinations. *Case Reports in Psychiatry* 2017, Article ID 3968751. Available from: <https://doi.org/10.1155/2017/3968751>
6. Striano S, Striano P. Clinical features and evolution of the gelastic seizures-hypothalamic hamartoma syndrome. *Epilepsia* 2017;58(2):12-5.