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Case Report

Long-term treatment and poor management of psychiatric manifestations in mesial temporal sclerosis leading to suicidality in a young male ☆

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ABSTRACT

Psychiatric disorders including anxiety, psychosis, and aggressive behaviors are frequently diagnosed in patients with epilepsy. In this communication, we report a patients with mesial temporal lobe sclerosis with interictal affective-somatoform (dysphoric) disorders who was never treated for psychiatric manifestations, and who deliberately took a massive dose of phenytoin and phenobarbitone with a motive of suicide, resulting in severe combined toxicity. Such unfortunate incidences may be prevented, and quality of life can be improved with early diagnosis, through the selection of the right antiepileptic drugs, reasonable psychiatric consultation, and appropriate biological and psychological treatments.

1. Introduction

Mental disorders are very common in epilepsy. Studies have estimated that up to 50% of patients with epilepsy develop psychiatric disorders, the most common being depression, anxiety, and psychotic disturbances [1]. These psychiatric disturbances can be classified according to how they relate in time to seizure occurrence, i.e., ictal, periictal (preictal/prodromal, postictal), or interictal. Mood and behavioral changes can occur as a direct manifestation of the seizures, including anxiety, depression, and hallucinations. During the interictal period, cognitive dysfunction, psychosis, depression, anxiety disorders (like panic disorder, generalized anxiety, agoraphobia, social phobia, and obsessive–compulsive disorder), and dysphoric disorder have been described [2]. Improved seizure control has been associated with the emergence of psychiatric symptoms. Landolt introduced the term 'forced normalization' which refers to a dramatic reduction in epileptiform activity on EEG associated with the emergence of psychosis or, sometimes, behavioral/mood disturbances [3].

Mesial temporal lobe sclerosis (MTS) contributes to a significantly compromised quality of life for many patients [4]. The suicide rates in people with epilepsy are five times higher than the expected rate in the general population. However, among patients with temporal lobe epilepsy, the suicide rate can be 25 times higher [5]. Previously, cases having temporal lobe epilepsy with psychosis and behavioral changes have been reported [6]. Here, we are reporting the case of a young male who was suffering from complex partial seizure with secondary generalization and psychiatric comorbidity. His seizures were uncontrolled despite long-term treatment, and he was never treated for psychiatric manifestations.

2. Case report

Presented here is a case of a twenty-six-year-old young male who was brought to the emergency room in a state of unconsciousness following by massive drug intake. He was diagnosed with complex partial seizures with secondary generalization 14 years earlier and was on antiepileptic treatment with 300-mg/day phenytoin sodium and 60-mg/day phenobarbitone. His seizures were never controlled, and he had 5–6 episodes of complex partial seizures/month. Precipitating his emergency room presentation, he deliberately consumed a massive dose of antiepileptic drugs (approx. 25 tablets of phenobarbitone and

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45 tablets of phenytoin) on account of a sudden emotional outbreak following a dispute with his relatives.

As stated by his family members, there was a significant change in his behavior in the form of irritability, impulsivity, obstinacy, decreased frustration tolerance, and assertiveness. His academic performance also deteriorated. He had poor communication with family members. Before starting antiepileptic medication, he was performing well in his studies.

On physical examination, the patient was of an average build with a poor general condition. Vital signs revealed the following: a temperature of 99.6 °F, a pulse rate of 120 beats/min, a blood pressure of 110/68 mm Hg, a respiratory rate of 32 breaths/min, and an SPO_2 of 86%. On systemic examination, the patient was comatose (GCS: E1V2M2) with bilateral crepitation on chest examination. The rest of the physical examination findings was insignificant. The patient had been resuscitated, gastric lavage was done, and blood and urine samples were taken. He was put on a ventilator and given supportive and symptomatic treatment. Relevant blood parameters were also monitored. His serum drug concentrations were measured by immunoassay and were 36 μg/ml for phenytoin and 105.67 μg/ml for phenobarbitone. With meticulous symptomatic management, the drug level came down to 22.40 μg/ml for phenytoin and 52 μg/ml for phenobarbitone on the 9th day.

Gradually, his symptoms resolved, and on the 8th day, there was complete recovery. The patient was subjected to EEG and brain MRI. Brain MRI revealed right mesial temporal sclerosis, and EEG revealed epileptiform discharges arising from the right temporal area. His psychiatric evaluation revealed interictal affective-somatoform (dysphoric) disorder, but no further suicidal ideations/intention were elicited. The patient was put on 600-mg/day oxcarbazepine which was gradually built up to 1200 mg/day, while for the psychiatric symptoms, 10-mg/day olanzapine and 50-mg/day sertraline were started. In the follow-up period of six months, he had three complex partial seizures, but he had a marked improvement in depressive mood, impulsivity, and suicidality.

3. Discussion

The complex relationship between temporal lobe epilepsy (TLE) and psychiatric disorders (PDs) has been a matter of interest, and important studies have emphasized this association. It is already known that psychiatric comorbidity compromises a patient's quality of life [7–9]. About 6% of patients with epilepsy in general appear to suffer from a PD. This number rises to 10–20% in populations with TLE or refractory epilepsy [7]. Among the mood disorders, depression is the most common (24–74%) followed by anxiety disorders (10–25%), psychoses (2–7%), and personality disorders (1–2%). Risk factors associated with PD in TLE are clinical refractoriness, MTS, and bitemporal lesions [8,10]. Patients with TLE are at an increased risk of PD compared with those with extra-TLE or primarily generalized epilepsies presumably because of the limbic system's involvement in the regulation of emotions and behavior. Some studies, however, did not find such differences [11–13]. In our case, the patient presented with TLE associated with intermittent affective-somatoform symptoms including irritability, depressive moods, suicidality, insomnia, atypical pains, anxiety, phobic fears, and cognitive decline.

This young man was on prolonged unsupervised, antiepileptic medication, and the serum level of the drugs had never been monitored before this unfortunate incidence. Therefore, the possibility of deleterious effects of drugs (phenytoin) could not be ruled out. Depression and suicidal tendency may be explained because of the deterioration in cognitive performance, which may have exacerbated certain psychological sequelae affecting not only his vocational domains but also his interpersonal and social domains. Primarily, the decreased academic performance produced anxiety which served to enhance performance-driven activity. The underdiagnosis and undertreatment of depression highlighted by this study are not new in literature, but this report signifies that it is still persisting despite numerous publications from specialists on this topic. He was treated with antipsychotic drugs, and with treatment, there was dramatic improvement in his depressed mood, impulsivity, and suicidality. Other modalities of treatment for depression include psychological interventions such as counseling, psychotherapy, or cognitive/behavior therapy.

The prevalence of the disease in rural areas is twice that of the urban areas. The problems faced by health-care professionals in managing epilepsy in hugely populated rural, underserved, remote areas of India are lack of diagnostic facilities (51.9%), treatment noncompliance (28.2%), nonavailability of new AEDs (17.3%), lack of educational services (17.3%), inadequate training (40.4%), nonavailability of epilepsy surgery (17.3%), and lack of treatment insight for psychiatric comorbidity [14].

With periodic clinical and psychiatric evaluation and early treatment of psychiatric manifestations, such unfortunate incidences can be avoided. Early recognition and management of psychiatric disorders in patients with epilepsy is extremely important because it improves quality of life, decreases suicidal intent, and aids in better seizure control.

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