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PANIC DISORDER OR TEMPORAL LOBE EPILEPSY DIAGNOSTIC DIFFICULTY

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Abstract : Similarities in the clinical presentation of panic disorder and temporal lobe epilepsy suggest that the two disorders are related and can lead to difficulties in diagnosis and management. Here we present a case of temporal lobe epilepsy presenting as panic disorder, diagnostic difficulties and management.

Keyword :panic disorder,temporal lobe epilepsy

INTRODUCTION

The diagnosis of complex partial seizure is challenging. Differentiating panic disorder from complex partial seizure is difficult. The lifetime prevalence of epilepsyy is 3-4%. The simple or complex partial seizures comprise 60% of epileptic patients (Hauser et al, Keranen et al).1, 2. Panic disorder has a lifetime prevalence of about 1.5%. Panic disorder is characterized by discrete episodes of unexpected, sudden, overwhelming anxiety accompanied by a variety of physical, cognitive, and behavioural symptoms (Robins et al).3 Panic disorder and complex partial seizures may have similar symptoms. Epileptic patients may have symptoms of tension, anxiety and depression before an episode of seizure. Patients with complex partial seizures have affective symptoms, fear and autonomic features like changes in skin colour, blood pressure, and heart rate (Duncan et al).4 In *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, for diagnosing panic attack, patients must have at least four of 13 symptoms

like palpitations, sweating, trembling, sensation of breathlessness, chest pain, feeling of choking, nausea, faintness, chills or flushes, paraesthesia, fear of losing control, fear of dying, and derealisation or depersonalization (Robins et al, American Psychiatric Association).3, 5 There is a considerable overlap of symptoms between the panic dIsorder and complex partial seizure and so a definitive diagnosis may become difficult. No single clinical sign is generally pathognomonic of epilepsy or reliably differentiates complex partial seizures from panic attack (Devinsky et al).6 Panic attacks have often been mistaken for episodes of complex partial seizures (Hirsch et al, Genton et al). 7, 8 Likewise, seizures have also been mistaken for panic attacks (Alemayehu et al, Laidlaw et al, Lepola et al) 9, 10, 11. The prevalence of panic attacks in adult epileptic patients is around 21% (Pariente et al) 12 compared with 3.8% in the general population. We describe a patient with complex partial seizures whose presentation was initially suggestive of panic disorder.

CASE HISTORY

22yr old male Mr. R, married, supervisor by occupation, presented with complaints of episodes of intense fearfulness and palpitation for 18 months with fear of death, fear of getting another episode of intense palpitation, chest discomfort, tremors of extremities, restlessness and headache lasting for 1- 2 minutes. Onset of illness was sudden; course was continuous and progressive in nature. Initially he had such episodes once in a month and for the past 7 months he has such episodes approximately 2- 3 per month. He usually remembered the events that occurred during these episodes. There was no history of total loss of consciousness, involuntary movements, bowel & bladder incontinence and mental confusion following such episodes. He gradually stopped going to work and started to avoid crowded places for the past 7 months. Whenever he went to crowded places, he would get the fear that he might get such an episode; leading to death if not rescued properly in those unfamiliar crowded places. He had difficulty in falling asleep because he kept on thinking that he might get such an episode during sleep and die, though he never had such episodes during night time. There was a past history of alcohol abuse and history of smoking 5 cigarettes per day till 18 months back. After he started getting these episodes, he stopped smoking and drinking alcohol. His premorbid personality was that of an extrovert, well adjusted, responsible and religious individual. Physical examinationshowed tremors of both hands, pulse rate was 90/min and blood pressure was 130/90mmHg. During mental status examination, he was found to be fidgety, rapport was established, psychomotor activity was increased slightly, mood was fearful, affect was anxious and appropriate, quantum of speech and rate were increased. In thought content, he had anticipatory fear (i.e., fear of having another attack of intense fear and palpitations). He told that during the episodes, he would have fear of dying or getting a heart attack. He also expressed fear of going out to crowded places. No perceptual disturbance was noted. Other cognitive functions were normal. Routine blood investigations including thyroid function test was within normal limits. CT brain showed no abnormality. ECG, ECHO and EEG were within normal limits. Patient was diagnosed to have panic disorder with agoraphobia and treated with tablet escitalopram 20mg per day and tablet clonazepam 1mg per day. Patient was followed up for the next 3 months. Patient continued to have such episodes with increasing frequency and severity. We considered the diagnosis of

temporal .lobe epilepsy and treated with tablet sodium valproate 600mg per day as a trial. Patient showed dramatic improvement within a month. He rarely had such episodes and was able to resume his job. So presumptive diagnosis of temporal lobe epilepsy was made and patient was continued on tablet sodium valproate. Tablet clonazepam was gradually tapered and stopped in two months During mental status examination, he was found to be fidgety, rapport was established, psychomotor activity was increased slightly, mood was fearful, affect was anxious and appropriate, quantum of speech and rate were increased. In thought content, he had anticipatory fear (i.e., fear of having another attack of intense fear and palpitations). He told that during the episodes, he would have fear of dying or getting a heart attack. He also expressed fear of going out to crowded places. No perceptual disturbance was noted. Other cognitive functions were normal. Routine blood investigations including thyroid function test was within normal limits. CT brain showed no abnormality. ECG, ECHO and EEG were within normal limits. Patient was diagnosed to have panic disorder with agoraphobia and treated with tablet escitalopram 20mg per day and tablet clonazepam 1mg per day. Patient was followed up for the next 3 months. Patient continued to have such episodes with increasing frequency and severity. We considered the diagnosis of temporal lobe epilepsy and treated with tablet sodium valproate 600mg per day as a trial. Patient showed dramatic improvement within a month. He rarely had such episodes and was able to resume his job. So presumptive diagnosis of temporal lobe epilepsy was made and patient was continued on tablet sodium valproate. Tablet clonazepam was gradually tapered and stopped in two months.

DISCUSSION

Differentiating complex partial seizures from panic disorder can be difficult on the basis of symptoms, but it is clearly important. Historical features may aid diagnosis.

Typical features of partial seizures are

· Short duration of attack (usually 1 to 2 minutes)

· Witness accounts of motor automatisms (for example, repetitive swallowing, chewing or plucking at clothes)

· Age greater than 45 years at onset of attacks

· History of febrile convulsions

· Lack of response to conventional treatments for panic attacks

Even though diagnosis is difficult, some anamnestic and clinical features can be helpful when diagnosing, if prolonged EEG monitoring and video EEGs are not available.

Features differentiating partial seizures from panic attacks are

	Seizures	Panic
Clinical features		
Prolonged duration	++	±
Repetitive, stereotyped Manifestations	++	±
Altered consciousness	++	±
Postictal confusion	++	±
Post-attack agitation	±	+
History		
Family history of epilepsy	++	±
Family history of panic disorder	±	++
Separation anxiety in childhood	±	++
EEG and neurological features		
Interictal abnormalities	+	±
Ictal abnormalities	++	±
Treatment		
Response to anxiolytics (Non-benzodiazepines)	±	++
Response to antiepileptics (Non-benzodiazepines)	++	±

Note:

++ = discriminating feature

+ = consistent feature

± = absent feature

What confuses the most is the EEG pattern. In fact, interictal abnormalities may also evade detection in surface EEGs of epileptic patients. Continuous 24-hour EEG monitoring would be useful in linking ictal symptoms to specific EEG abnormalities, but this examination can also be disappointing, especially when attacks are rare. In our case, symptomatology was common to both panic disorder and temporal lobe epilepsy. The age of onset, symptomatology, intact sensorium during such episode, no confusional state following the episode and normal investigations favoured the diagnosis of panic disorder. Echocardiogram was done to rule out mitral valve prolapse. Electrocardiogram was done to rule out any cardiac conduction abnormality. So he was treated with SSRI (Tablet escitalopram). But the brief duration of each episode (1-2 minute), non-responsiveness to Tablet escitalopram and rapid reduction of symptoms with Tablet sodium valproate favoured the diagnosis of temporal lobe epilepsy. So a diagnosis of temporal lobe epilepsy was made and treated accordingly.

CONCLUSION

Differentiating panic disorder from temporal lobe epilepsy is a difficult process. But from treatment perspective, it needs to be done with careful follow up and appropriate investigations like 24hr video EEG. In case of panic disorder, which is not responding to conventional treatment, a revision of diagnosis to rule out other medical causes; including temporal lobe epilepsy should be done. In situations, where 24hr video EEG is not possible, a trial of anti-epileptics can be tried in patients of panic disorder, who are not responding to treatment and if all other investigations are normal.

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