# Temporal Lobe Seizures Presenting as Abrupt Clinging Behavior in a Child

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#### ABSTRACT

True and psychogenic nonepileptic seizures (PNES) go hand in hand. One colors the picture of other. Although it is thought that children carry lower risk for PNES than adults, this may represent the under-diagnosis of this condition in childhood due to few studies on this specific topic. Again, true seizure can be misdiagnosed by dramatic and varied manifestations appearing as psychological phenomena. We report a case of a 9-year-old boy presenting with sudden onset, short lasting, off and on different "melodramatic" episodic behavioral problems with La-Belle' indifference without loss of consciousness, appearing to be of psychogenic origin but finally ended with a diagnosis of temporal lobe epilepsy and responded dramatically with antiepileptics. The goal of this case report is to alert the reader to be cautious about rarer presentations of epilepsy and see each case holistically which may be misguided as PNES.

Key words: Complex partial seizure, psychogenic nonepileptic seizures, temporal lobe epilepsy

#### INTRODUCTION

Have you seen patients with behavioral or neurocognitive symptoms with ambiguous presentations and diagnostic dilemma in distinguishing seizures from pseudoseizures? Have you faced a case of complex partial seizures with a melodramatic presentation? Then the following case of a child with atypical neuropsychiatric symptoms would provide hints to many questions regarding psychiatric manifestations of seizure.

Psychogenic nonepileptic seizures (PNES) are characterized by observable, abrupt paroxysmal changes in consciousness or behavior that present

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similar to epileptic seizures but are not accompanied by electrophysiologic changes associated with epilepsy and are psychological in nature. [1] Presenting symptoms mimic a wide array of nervous system dysfunctions, such as changes in behavior, motor activity, sensations, cognitive and autonomic functions, and reflect unconscious effort to externalize intrapsychic conflict. However, some clinical features suggest PNES such as biting the tip of the tongue, prolonged seizure duration, gradual onset of the attack, fluctuating course of disease severity, eyes closed during a seizure, and side to side head movements. On the other hand, complex

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automatisms, severe tongue or inner mouth biting, and incontinence are uncommon in PNES.<sup>[2,3]</sup>

Temporal lobe epilepsy in children has been less well studied compared to that seen in adults, and there are differences regarding etiology and semiology of seizure in these two groups. [4] Depending on consciousness, patient may or may not remember having a seizure at all. A postictal phase of confusion frequently follows seizures and can last several minutes. PNES are seen in up to 20% of patients admitted to epilepsy monitoring units. Epilepsy and PNES can be comorbid, with true seizures occurring in as many as 25% of patients with PNES. [5]

## **CASE REPORT**

A 9-year-old boy, born of full term normal delivery, with normal developmental milestones, studying in 4<sup>th</sup> standard, with excellent academic performance; presented with sudden onset, brief, attacks of abnormal dramatic clinging behavior to mother with unprovoked utterance of 2–3 sentences about a recent ongoing life event and simultaneous urination in clothes since last 15 days.

## A typical attack

Attack lasts for 10-15 s. As per mother, the patient has sudden onset screaming attacks with crying spells, at times calling her "mother...mother," sometimes by name, embracing her firmly, sometimes lying down on the floor folding both upper and lower limbs, keeping limbs close to chest as if in fear, followed by running here and there or abnormal movements of hands as if playing tabla on table [Figure 1]. The patient becomes normal within seconds, with amnesia for the event without any apparent cognitive deficits. He speaks on different topics during the attacks such as "he wants to stand first in the class" or "he won so many awards in games" or uses abusive words, sometimes identifies himself with heroes (Chota Bheem-famous Hindi cartoon character) of cartoon channels in television. During the attack, if anyone tries to control him, patient bites or beats that person, throws objects at him. Such attacks occur around ten times daily both during sleep and waking hours.

#### **Present history**

Mother came in the evening psychiatry OPD for consultation, reported of attacks happening at particular times of the day at 11 a.m., 2 p.m., 4 p.m., 6 p.m., etc., and predicted it might occur then, and it actually occurred after her statement at around 6.30 p.m. Observed attack was sudden, with typical clinging behavior, hugging mother and saying that "someone was trying to catch him," when mother



Figure 1: Clinging behavior of a child during seizure episode

asked for reason patient replied "enemies are coming to harm him," and patient's pants got wet with urine. He regained full consciousness in few seconds, sat down as if nothing had happened. The patient was indifferent to urination in public place.

The patient reported feeling of abnormal sensations in the left upper limb before attack and from any place starts searching his mother, many a times attack occurs on the way. Patient suggested his teacher not to let anyone sit beside him as sudden attacks might harm other children. Once at school, when during computer training class patient tried to operate computer before his turn, he was scolded and instructed by teacher to wait for his turn, but patient screamed with an angry look shouting for not allowing him to operate computer, followed by urination. Teacher was scared, lodged complaint against him, and when the principal came, everything was all right.

While playing outside there was a history of fall and injury 10 days back, followed by a sudden run. Friends tried to stop him but could not and he became calm automatically after few seconds. Mother scolded and beat him. According to the patient, he remained helpless regarding control of his behavior and said "the person who wears only knows where the shoe pinches." In between attacks, recently patient developed signs of hyperactivity like not sitting at one place, continuously moving his limbs without purpose, asking for food repeatedly, not listening to anyone, harassing other children in school by beating or teasing them with pencil or other objects. Mother noticed a sudden attempt to jump from the parapet of roof of house 5 days back and saved him luckily.

Mother reported patient had occasional mild attacks without urination 2 years back, which subsided after treatment for 7 days and was apparently

well during last 2 years. There was no apparent stressor; no past and family history of epilepsy or features suggestive of attention deficit hyperactivity disorder, conduct disorder, autistic spectrum disorder. Electroencephalogram (EEG) showed bilateral frontotemporal region spikes, sharp and slow wave activity occasionally becoming generalized. Magnetic resonance imaging brain was unremarkable.

Tablet carbamazepine 200 mg/day was started and patient improved totally with 300 mg of carbamazepine just in few days.

#### DISCUSSION

True seizure and PNES can be misdiagnosed with each other [Table 1].

It is thought that children carry lower risk for PNES than adults.<sup>[7]</sup> In a study by Kotagal *et al.*,<sup>[8]</sup> frequency of paroxysmal nonepileptic events, including psychogenic events, in children and adolescents, was 15.2%. Wyllie *et al.*<sup>[9,10]</sup> demonstrated that PNES may occur in young children between 8 and 10 years of age. According to them, younger children, with nonepileptic paroxysmal behavior, frequently present mannerisms that may be mistakenly diagnosed as epilepsy, such as parasomnias, hyperventilation attacks, breath holding spells, syncopal events, and movement disorders. PNES when misdiagnosed

and treated as intractable epilepsy, it impairs the quality of life with subsequent iatrogenic consequences.

In this case, sudden onset, abrupt off and on melodramatic varied presentations with typical clinging behavior toward mother, verbal and nonverbal responses during attack, talking on recent ongoing life events appearing out of current affairs or intrapsychic conflicts, with La-Belle' indifference, occurring in clusters, with past history of similar attacks which improved with short duration of treatment were in favor of PNES. As the child was intelligent and thinking he might have learnt a patterned behavior to urinate a little amount not to spill outside pants might lead anyone toward a diagnosis of psychiatric origin but with h/o urination, attacks during sleep and one instance of injury, suspecting true seizures, and investigating with an urgent EEG revealed epileptiform discharges. The patient improved on antiepileptic drugs soon.

## CONCLUSION

This case highlights that though a case might present with apparent psychiatric signs and symptoms, detailed history and frequent assessments with proper systemic investigations give a proper diagnosis.

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**Table 1: Discussion of different cases** 

| Citation                                    | Presentation  | Favor of PNES   | Favor of epilepsy  | Diagnosis  |
|---|---|---|--|--|
| Roffman and<br>Stern, 2006 <sup>[5]</sup>   | Mr. A had a sudden episode of shaking with arms flailing widely crossing the midline, unresponsive to questions, but shouting, "Help me!" Following episode appeared fully alert and reported clear memories of the event. Later that night, he complained of abdominal pain. Soon thereafter, he became less responsive, continually repeated the phrase "Are those for me?" | Arms flailing crossing midline<br>Shouting<br>Clear memories of event<br>Abdominal pain<br>EEG: Normal  | MRI - heterotopic gray<br>matter in frontal and<br>temporal regions  | Initially<br>PNES<br>Finally<br>TLE                  |
| Mascia et al., 2015 <sup>[1]</sup>          | Female (62 years) with history of seizures unresponsive to AEDs, occurred many times per day for 2 years, exclusively during awake state. Semiology - a paroxysmal paraesthesia, described as "pins and needles" in lower limbs, accompanied by unprovoked paroxysms of laughing lasting for a variable time (1-20 min). During attacks, awareness and responsiveness intact  | Exclusively during awake state<br>Awareness and response<br>EEG, MRI - Normal<br>Not responding to AED<br>Episode with similar features<br>after suggestion | Unprovoked paroxysms<br>of laughing<br>Many times/day<br>Paroxysmal<br>paraesthesia  | Initially<br>gelastic<br>seizure,<br>finally<br>PNES |
|   | Woman (34 years) with history of paroxysmal spells with sudden behavioral change, unprovoked laughter and intact consciousness. Episodes lasted several minutes, occurred only during awake state with a weekly frequency for last 4 years  | Exclusively during awake state<br>Conscious<br>Episode with similar features<br>after suggestion<br>EEG: Normal<br>Unresponsive to AED                      | Sudden behavioral<br>change<br>Unprovoked laughter   |  |
| Patidar <i>et al.</i> , 2013 <sup>[6]</sup> | 82 patients (age >14 years) with clinical suspicion of PNES with or without coexisting epilepsy were studied Video-EEG monitoring of 63 (76.82%) had confirmed diagnosis of PNES  | AEDs were slowly withdrawn in patients with only PNES (seizure free in 46.66% and >50% improvement in 24.44% cases)   | Preictal headache,<br>ictal eye closure, jaw<br>clenching, resistant<br>behavior, ictal weeping,<br>ictal vocalization,<br>and unresponsiveness<br>during episodes | 76.82%<br>were<br>PNES                               |

AED – Antiepileptic drugs; PNES – Psychogenic nonepileptic seizures; EEG – Electroencephalogram; TLE – Temporal lobe epilepsy; MRI – Magnetic resonance imaging

#### **Conflicts of interest**

There are no conflicts of interest.

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