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Differential, Delayed and Dual Seizures-“3D Seizures”

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Abstract

Since historical times, hysteria has colored the literature from novels to movies. The nomenclature changed from hysteria to dissociation over time. With More reliable diagnostic tools being available it became easier to objectively identify this phenomenon.

However clinical examination still appears to be the sole diagnostic approach due to ambiguity in results of widely used investigations like EEG and MRI. Pseudo-seizures constitute about 25% of total patients of hysteria and 20% of patients referred to epilepsy centres. There is wide overlap between two diagnoses. Also possibility of differential diagnosis needs to be ruled out before labeling a case with seizures or PNES. Relying long time on particular diagnosis clinically without undergoing available investigations can complicate whole scenario. Author highlights the importance of differential, delayed and dual diagnosis of Pseudo-seizures and paucity of available possible tools to diagnose Pseudo-seizures.

Keywords: Seizure; Pseudoseizure; Diagnosis

Introduction

Pseudo-seizures or psychogenic non epileptic seizures (PNES) are widely known as paroxysmal alterations in behaviour that resemble epileptic seizures but are without any organic cause [1]. The incidence of PNES at 1.4 per 100,000 people and 3.4 per 100,000 people between the ages of 15 to 24 years [2]. Author highlights the importance of differential, delayed and dual diagnosis of Pseudo-seizures and paucity of available possible tools to diagnose Pseudo-seizures.

Case Report

Fifty year old lady Mrs. G, illiterate, widow from lower socio-economic class of rural Southern India presented with episodes of shaking of both the hands, deviation of mouth to right side with extension of neck and intense anxiety with hyperventilation. There were certain episodes of staring at roof and making tight fists with both the hands. Some of them

featured involuntary movements and speaking difficulty without apparent neurological deficit lasting for 5 minutes since past 1 year. Patient came with her daughter to our hospital with anxious affect, preoccupied with multiple somatic complains and fear of something terrible that may happen to her. Initial evaluation revealed no focal neurological deficits and neurologist referred her to psychiatrist for somatic concerns. Patient was started on Tab. Amitriptyline 10 mg to 25 mg/day.

Following which she had no symptoms of prior episodes for next 6 months. After 6 months while being on treatment, she had an episode of chewing movements of mouth with right unilateral tonic-clonic movements lasting for 30 seconds followed by confusion which was noticed by her daughter and patient was admitted in psychiatric ward after two such episodes.

On examination during 3rd episode in the hospital, patient was found to be weeping with stiffness of right hand, extension of neck, deviation of mouth to right side along with difficulty in breathing and staring at the roof lasting for 5 minutes followed by generalized weakness and numbness of right cheek. This episode was not associated with jerks, loss of consciousness, incontinence or fall. Neither affective nor psychotic symptoms could be elicited. Moreover no definite psychological stress was found. This time physical examination revealed exaggerated deep tendon reflexes with extensor plantar on right side.

Patient was observed in the ward for these episodes while Amitriptyline was stopped. EEG study revealed asymmetry between right and left sides with seizure discharge in right frontal region. Right fronto-parietal granuloma on CT brain and multiple areas of susceptibility in right fronto-temporal regions on MRI Brain explained the nature of symptoms and diagnosis of frontal lobe seizure was made while starting Carbamazepine 800 mg/day.

After starting Carbamazepine patient was observed in the ward and had 2 episodes of Head nodding, hand shaking, and difficulty in speaking which lasted for 30 minutes to 1 hour. On both the occasions, patient appeared apprehensive, conscious without neurological deficit. Simultaneously a diagnosis was revised as frontal lobe seizure with pseudo seizure and she was started on Tab. Clonazepam 0.5 mg for the apprehension related to future episodes. Thereafter she continued to follow up and received Tab. Escitalopram 10 mg for her mixed anxiety

depressive symptoms. However no seizure like episode were reported in subsequent two years of out-patient follow up.

Discussion

Pseudo-seizures are described to have varied phenomenology including abnormal movements, breathing difficulty, head nodding and speech arrest with or without repetition of pattern in subsequent episodes [3]. This does not make it a stereotyped movement disorder as complex partial seizures do have semiological similarities with Pseudo-seizures [4]. In fact frontal lobe seizures are considered to be most bizarre in their clinical presentation and likely to be missed on EEGs. Then how does one go about deciding the plan of management? It is extremely important to have Video EEG recording of such events; but that again becomes vain efforts for someone whose episode frequency is very less as described in our case.

There are no strict distinctions because Pseudo-seizures have been associated with abnormal brain pathology and ictal EEG discharges whereas some Frontal lobe seizures are known to be EEG negative [5]. One thing is sure about these episodes, that they are invariably associated with certain physiological or psychological disturbances which can be early life trauma, interpersonal stressors and chronic stress with abnormal hormonal response mediating the plastic changes in the brain. The association is a chance but for a psychiatrist it is extremely valuable to carry out all possible investigations to benefit the patient optimally [5]. Missing any of the two diagnosis impacts the quality of life equally and hence antiepileptic along with psychotropic can be used whenever necessary with close follow up.

Certain facets of these dissociative disorders and co-existing seizure disorder need critical appraisals which has been discussed under the headings of differential, delayed and dual nature of diagnosis.

Differential diagnosis

Perhaps the most interesting area in such cases is a diagnosis of an illness and requires ruling out various other conditions which are summarized in the Table 1 [6]. Optimum use of diagnostic procedures should be encouraged in given clinical setting. Clinical expertise and having a good therapeutic relationship with the patient has an impact on prognosis. Hence accurate diagnosis matters for a clinician to have feeling of his expertise as well as for a patient to get reassured about nature of the condition [7]. This becomes a key question if specialists want to help their patients rather than getting out of helpless situation. There are conditions like encephalitis, syncope, Transient ischaemic attacks which would bear resemblance to any one of the two disorders under consideration.

Detailed serological investigations, EEG recording and prompt imaging would help clinician to rule out most of these conditions provided used judiciously when required. Similarly a diagnosis of dissociative disorders should not be a diagnosis of exclusion but in depth enquiry is expected regarding patients' vulnerability to

stressors, coping skills, role modelling, secondary gain and other associated anxiety and depressive symptoms.

Table 1 Differential diagnosis of PNES.

Limbic Encephalitis	Transient ischaemic attacks
Frontal lobe seizures	Autoimmune encephalitis
Complex partial seizures/ Nocturnal epilepsy	Neurodegenerative disorders
Syncope	Tardive dyskinesia

Delayed diagnosis

It is specially mentioned because in most of the cases either epileptic phenomenon or dissociative phenomenon gets diagnosed very late in the course of illness. Clearly quality of life gets worse for these group of patients. Conventionally it has been seen that a component of psychological distress often makes a pressure on a psychiatrist to underplay neurological etiology. On the contrary any organic component to the illness makes psychiatrist underplay the psychological aspect of it. Nevertheless this article also highlights the need for changing traditional role of a psychiatrist and neurologists to certain extent when it comes to these group of patients [8]. It is always worthwhile to reconsider the diagnostic possibilities in a case of seizure disorder or PNES if clinical condition do not improve to a satisfactory level. Considering diagnostic work up is highly recommended to avoid delayed diagnosis of any one of these disorders.

Dual diagnosis

Since seizure disorder and PNES can coexist together, it would also implicate the two different group of therapies for such cases. The question arrives when it comes to discontinuation of antiepileptic medications, once psychogenic cause is conferred. Similarly when diagnosis of seizures is made, it becomes difficult for a psychiatrist to follow up the case further but the patient still continue to use psychotropic medications as and when required. It is a sceptical decision for neurologist and psychiatrist to play "either or game". Why it is not possible to have both the diagnosis over a longitudinal course of illness? Hence it is possible that patient can have psychiatric diagnosis earlier and current clinical presentation reflecting organic pathology or both the diagnosis dating back few years or presenting with PNES on the background of chronic seizure disorder [9]. Yes, it needs to be emphasized in clinical practice and a dual diagnosis if possible should be given to a patient without compromising the clinical care.

Conclusion

It is a clinical skill to make a healthy balance in diagnosing seizures and PNES with or without using available investigative tools. In developing countries where access to specialty care is challenging, relying on clinical diagnosis plays a key role in determining quality of life of a patient. Since concurrent diagnosis of seizures and PNES is evidenced by the current

clinical practice, we expect more liaison work between neurology and psychiatry in future pertaining to these kind of diagnostic dilemmas. Finally author tries to highlight that we need to come out of the two dimensional view of diagnosing either of these disorders and move into three dimensional concept of Differential, Delayed and Dual nature of seizures- "3D seizures" in every clinically suspected case.

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References

1. Reuber M, Elger CE (2003) Psychogenic nonepileptic seizures: review and update. *Epilepsy Behav* 4: 205-216.
2. Benbadis SR, Hauser WA (2000) An estimate of the prevalence of psychogenic non-epileptic seizures. *Seizure* 9: 280-281.
3. Bhatia MS (2004) Pseudoseizures. *Ind Pediatr* 41: 673-679.
4. Williamson PD, Spencer DD, Spencer SS, Novelly RA, Mattson RH (1985) Complex partial seizures of frontal lobe origin. *Ann Neurol* 18: 497-504.
5. LaFrance WC, Baker GA, Duncan R, Goldstein LH, Reuber M (2013) Minimum requirements for the diagnosis of psychogenic nonepileptic seizures: A staged approach: A report from the International League Against Epilepsy Nonepileptic Seizures Task Force. *Epilepsia* 54: 2005-2018.
6. Caplan JP, Binius T, Lennon VA, Pittock SJ, Rao MS (2011) Pseudopseudoseizures: Conditions That May Mimic Psychogenic Non-Epileptic Seizures. *Psychosomatics* 52: 501-506.
7. Baslet G, Seshadri A, Bermeo-Ovalle A, Willment K, Myers L (2016) "Psychogenic Non-epileptic Seizures: An Updated Primer. *Psychosomatics* 57: 1-17.
8. Karterud HN, Knizek BL, Nakken KKO (2010) Changing the diagnosis from epilepsy to PNES: Patients' experiences and understanding of their new diagnosis. *Seizure* 19: 40-46.
9. Devinsky O, Gazzola D, LaFrance WC (2011) Differentiating between nonepileptic and epileptic seizures. *Nat Rev Neurol* 7: 210-220.