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PSYCHOGENIC NON-EPILEPTIC SEIZURE WITH DEPRESSION- A CASE STUDY

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ABSTRACT: Psychogenic non-epileptic seizures (PNES), which intently look like epileptic seizures (ES), are regularly set off by mental trouble and address the most pervasive type of change issue experienced in clinical practice. Different states of being can both encourage and support PNES episodes. PNES episodes. Epilepsy, a common neurological disorder, imposes significant emotional and physical burdens, frequently resulting in elevated levels of anxiety and depression. This case report details the clinical course of a 25-year-old female diagnosed with PNES. The patient background of childhood trauma, early marriage, and depression likely predisposed her to the development of PNES upon diagnosing with epilepsy, characterized by seizure and depression, the patient experienced increased anxiety, irritability, loss of consciousness, and required hospitalization. Her treatment regimen of intravenous administration of Injection Levetiracetam 500 mg and oral olanzapine 2.5 mg to her seizures persisted. On evaluation of electroencephalography EEG and CT scan indicated the epilepsy and Panes. Although the surgical intervention was unnecessary, the management of epilepsy with ongoing pharmacotherapy significantly reduced her PNES episodes. This case emphasizes the critical role of addressing uneducation, early marriage, and depression associated with epilepsy diagnosed as this may lead to PNES.

INTRODUCTION:

The World Health Organisation: International Classification of Diseases (WHO ICD-11) classifies Functional Neurological Disorder (FND) and Psychogenic Non- Epileptic Seizures (PNES) in 6B60 as Dissociative Neurological Symptom Disorder characterized by the manifestation of motor, sensory, or cognitive symptoms that suggest an involuntary disruption in the typical coordination of motor, sensory, or cognitive functions [1].

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Instead, they are believed to be linked to psychological factors, such as stress, trauma, or emotional distress. They can closely resemble epileptic seizures, with symptoms including convulsions, shaking, loss of consciousness, or staring spells. The exact cause of PNES is not fully understood. Still, it is often associated with emotional or psychological stress, trauma, or underlying mental health conditions, such as depression, anxiety, or PTSD.

PNES can be quite convincing. They can include urination, tongue biting, and, in as many as 20% of cases, deliberate or accidental self-injury. Applying only clinical criteria, the distinction between psychogenic nonepileptic and epileptic seizures in most studies is no more than 80% to 90% accurate [1]. Diagnosis is often challenging and requires distinguishing PNES from epilepsy.

This is typically done with the help of video-EEG monitoring, which records brain activity while observing the patient's behavior during a seizure-like episode. If there is no abnormal brain activity during the event, PNES is diagnosed. Typically involves addressing the underlying psychological issues, often through psychotherapy (like cognitive behavioral therapy, or CBT) and sometimes medication for associated mental health conditions. Addressing the emotional or psychological triggers can help reduce or eliminate episodes. Epilepsy is a common neurological condition that impacts people of all ages and from various socioeconomic backgrounds worldwide, leading to a significant burden on health. Emotional distress, including anxiety and depression, is frequently observed among individuals with epilepsy and can significantly impair their quality of life [2]. Many individuals with PNES can see improvement with appropriate treatment and support, but recovery can be a gradual process. Working with a multidisciplinary team including neurologists, psychologists, and other healthcare professionals is important.

Case Presentation: A 25-year-old female was born with a full term without complications. At the age of 12 years (8th class), she married. She was fine till 2020. The patient started the altered behavior in 2020. The patient has attempted suicide 3 times in 3 years of duration (by hanging herself, rodenticide, and jumping in front of a lorry). Anger and irritability increase over time. The Patient used to talk highly of herself. The patient's father had a similar history of irrelevant talks and a suicide attempt (by hanging himself). Now, he is on anti-psychotic drugs by psychiatry. Three years back, the patient was given treatment for dissociative episodes, sudden loss of conciseness, and the froth from the mouth for 6 months and stopped. The patient has been sensitive to sound for 3-4 years, has physical aggression toward children, social withdrawal, and 3 years back she did not remember her husband and children and increased in stubbornness since 3 years. For past psychiatric illness use of medicine for 15 years for suicidal thoughts. The patient has been admitted to the hospital with a chief complaint of sudden onset of seizure-like activity, one episode of carpopedal spasm, headache, and sadness of mood(depression) patient has a history of similar episodes 3 -4 times in the last 6 months. One episode of irresponsive flexion and extension of right leg, hand, and jaw movement with closed eye.

On admission to the hospital, the patient was advised to opinion with an ophthalmologist for the blurred vision and headache Physician had a plan to start Lubrex eye drops for 2 weeks and a dermatologist for multiple pus-filled lesions on the face for 1 half a month with pain and itching she was on medication such as Tab Maxithral 500mg and Tab Sotret 10mg (multiple nodular cystic lesion with pus on the cheek and forehead). Oral retinoids have been cliffed due to psychotic symptoms and suicidal tendencies. The Physician has planned to start oral doxycycline after 5 days and Chemical peeling once in 15 days. She looked for care at a nearby mental emergency. A far-reaching assessment, including blood tests, an electrocardiogram, MRI, and electro-encephalography (EEG), uncovered no irregularities, prompting a diagnosis of Pnes (Psychogenic Non Epleptic Sezuire). Based on the consultation evaluation has been done including MRI and EEG to detect any abnormal activity for Epilepsy or seizures. MRI reveals few focal T2 and FLAIR hyperintensties in bilateral frontal subcortical white matter. Grade one median temporal lobe atrophy on both sides. Consequently, we have concluded that the patient had seizures or psychogenic non-epileptic seizures.

TABLE 1: DAY NOTES

Day Notes	Day-1	Day-2	Day-3	Day-4	Day-5	Day-6
Chief complains	1 episode of Carpo-Pedal Spasm, headache, Sadness of Mood (Diagnosis: Depression)	No Fresh Complaints	No Fresh Complaints,	No Fresh Complaints	Complainof loose stools.	No Fresh Complaints
On examination	The patient was conscious, coherent, and cooperative.	Patient slept well	The patient slept well,	Patient sleep decreased,appetite adequate, mood was euthymic,and	The patient was conscious, coherent,	The patient was conscious, coherent,

				affectwas congruent	and cooperative.	and cooperative.
Advice	Review after 3 daysand check thyroid profile.	Dermatology opinion, CT scan of the brain, EEG.	Inform as required.	Inform asrequired.	Inform as required.	Inform as required.
medication	Continue same treatment as prescribed and add capsule Doxycycline100mg after5 days, Injection Levipil and Lubrex eyedrops three times aday for 2 weeks as required.	Continue the same treatment as prescribed and add a tablet of Oleanz 5mg once a day.	Continue the same treatment. Stop Optineuron injection.	Continue the same treatment.	Continue the same treatment.	Continue the same treatment.

On general examination, her temperature was 98.7F, her blood pressure was 110/70mmHg, her pulse rate was 72 beats/min, and her respiratory rate was 20 breaths/min. Her general random blood sugar was found to be 107mg/dl.

On Day 1, the patient presented with one episode of carpo-pedal spasm, headache, and sadness of mood (diagnosed as depression). On examination, the patient was conscious, coherent, and cooperative. The current treatment was continued, with the addition of Doxycycline 100mg after 5 days, Levipil injection (as needed), and Lubrex eyedrops three times a day for 2 weeks. A thyroid profile was advised, and the patient was instructed to review after 3 days for further assessment. On day 2, the patient had no fresh complaints and reported sleeping well. A dermatology opinion, CT scan of the brain, and EEG were requested for further evaluation. The patient was advised to continue the same treatment and add Tablet Oleanz 5mg once a day. On day 3, there were no fresh complaints, and the patient slept well. The necessary information was provided as requested. The same treatment was continued, and the Optineuron injection was discontinued.

On day 4, there were no fresh complaints. The patient's sleep had decreased, appetite was adequate, mood was euthymic, and affect was congruent. The necessary information was provided as requested. The same treatment continued.

TABLE 2: TREATMENT CHART

Dos Age	Drug	GenericName	IndicatiOn	Dose	Rout E	FrE Q	D 1	D2	D3	D4	D 5	D6
Inj.	Pan	PantopraZole	Proton Pump Inhibitor	40mg	IV	OD	✓	✓	✓	✓	✓	✓
Inj.	Zofer	OndanseTron	Anti- Emetic	4mg	IV	SOS	✓	✓	✓	✓	✓	✓
Inj.	Optine Uron	MecobalAmin, Alpha Lipoic Acid, And VitaminB-1	Vitamin B12 SupplemeNt	1AMP IN 100mlNS	IV	OD	✓	✓	✓	-	-	-
Inj.	Pcm	AcetaminOphen	AntipyreTic	1G	IV	SOS	✓	✓	✓	✓	✓	✓
Tab.	NaxdoM	NimesuliDe	Nsaid	250mg	PO	BD	✓	✓	✓	✓	✓	✓
Tab.	ShelcAl-Hd	Calcium Hydroxi De, MagnesiuM, And Choleca Lciferol.	Calcium SupplemeNt	500mg	PO	OD	✓	✓	✓	✓	✓	✓
Tab.	Augme Ntin	AmoxiiciLlin AndClavulo Nic Acid	AntibiotiC	625mg	PO	BD	✓	✓	✓	✓	✓	✓
Tab.	Zerod Ol-Sp	Serratio PeptidaseAnd Acetamin Ophen	Anti- Inflamm Atory	1Tab	PO	BD	✓	✓	✓	✓	✓	✓
Tab.	Clono Tril	ClonazepAm	Anti- Epileptic	0.25mg	PO	OD	✓	✓	✓	✓	✓	✓

Syp.	Dupha Lac	LactulosE	Laxative	20ml	PO	SOS	✓	✓	✓	✓	✓	✓
Tab.	EsihanS	EsomeprAzole	ProtonPump Inhibitor	10Mg	PO	OD	✓	✓	✓	✓	✓	✓
Inj.	Levipil	LevetiraCetam	AnticonvUlsant	500mg	IV	OD	-	✓	✓	✓	✓	✓
Cap	Doxyc Ycline	DoxycycLine	AntibiotiC	100mg	PO	BD	-	-	-	-	-	✓
Tab.	OleanZ	OlanzapiNe	Anti-PsychotiC	2.5mg	PO	OD	-	-	✓	✓	✓	✓
UNG	Metro Gyl	MetronidAzole	AntibiotiC And Anti- Protozo Al	2%	TOP	OD	-	-	✓	✓	✓	✓
IVF	NormaL Saline	Sodium Chloride Solution	Fluid and ElectrolYte Replace Ment	50ml/HR	IV	/HR	✓	✓	✓	✓	✓	✓
UNG	Mupir Ocin	MupirociN	AntibiotiC	2%	T OP	OD	-	-	✓	✓	✓	✓
UNG	ClearGel	ClindamYcin And	Anti-Acne	1MG	TO P	OD	-	-	✓	✓	✓	✓

We provided treatment with IV administration of Injection Levipil 1.5mg Used as an anti-epileptic drug and drug Clonotril 0.25 mg is used for the treatment of seizures and anxiety Oleanz 2.5 mg is used in managing psychosis and other drugs such as Naxdom and Esihans Used for migraine headache and depression. In response to the complex condition, we implemented a multifaceted treatment strategy encompassing both pharmacological and psychosocial interventions. Levetiracetam 500mg daily and Olanzipin 20 mg daily are given as an anti-epileptic and antipsychotic medication regime. To ensure rigorous monitoring and and applicability of the treatment plan. The therapeutic focus was placed on encouraging the patient to maintain her daily life with minimal concern over her condition. To further enhance her support system, targeted psychoeducation regarding epilepsy and PNES, including seizure management.

DISCUSSION: Psychogenic nonepileptic seizures, recently known as pseudoseizures, for the most part, have a mental reason. They are not quite the same as epilepsy and don't include changes to electrical motivations in the mind.

Psychogenic nonepileptic seizure (PNES) includes assaults that look like epilepsy- related seizures in side effects and signs, yet strange electrical movement in your cerebrum doesn't cause them. All things being equal, the seizures are an actual response to hidden mental misery. Although PNES may display similarly to epileptic seizures, the exact pathology remains unclear. Many studies have found an association between PNES and psychological trauma, particularly sexual abuse, personality disorder, affective disorder, or a history of post-traumatic stress disorder [2].

Adolescence is a critical phase for socio-psychological growth, characterized by considerable physiological, emotional, and social changes. During this time, individuals are particularly vulnerable to the impact of external environmental factors. The heightened emotional reactivity and the increased likelihood of emotional disorders, such as depression, can serve as potential triggers for psychogenic non- epileptic seizures.

Early marriage frequently exposes individuals, especially young women, to considerable emotional and psychological strain. The pressures of marital responsibilities, along with societal expectations, can lead to feelings of entrapment or being overwhelmed. Such stress may manifest through physical symptoms like psychogenic non-epileptic seizures (PNES), which, although resembling epileptic seizures, have no neurological origin and are instead linked to psychological factors. Withdrawal from education and social life often leads to social isolation. Isolation can prevent individuals from developing healthy coping mechanisms, reducing their access to emotional support, and limiting exposure to positive social interactions.

Social withdrawal has been linked to depression and other mental health issues, which can trigger or exacerbate PNES.PNES can also present with unresponsiveness to various stimuli that can be similar to an absence seizure. Although absence seizures are more likely seen in childhood, they may initially present or recur in adulthood. Absence seizures typically present with behavioral arrest, blank facial expression, and impaired consciousness [3].

The stress, isolation, and emotional pressure associated with these factors can contribute to or worsen psychological distress, which may present as non-epileptic seizures. These seizures can be understood as the body's response to unresolved emotional trauma. Recognizing the links between these elements is essential for providing effective treatment, which must address both the psychological and physical aspects of PNES. The patient may not be able to identify the trigger or even be aware of their dissociative response. A final model views PNES as habitual behaviors reinforced by operant conditioning. The seizure-like activity leads to an intrinsic or extrinsic benefit, and thus, is repeated continuously.

Depression is a prevalent psychological condition often linked to psychogenic non- epileptic seizures (PNES). Intense emotions such as sadness, hopelessness, and a sense of worthlessness can result in significant emotional turmoil. In particularly vulnerable individuals, this emotional distress may manifest as PNES, serving as a physical manifestation of underlying psychological pain. Regarding treatment options, it is essential to educate both the patient and family about the causes and management of PNES. Shen *et al.* propose guidelines for discussing a diagnosis of PNES with the patient, including the recognition of PNES and the importance of close psychiatric follow-up [5].

CONCLUSION: The complexities involved in diagnosing and managing Psychogenic Non-Epileptic Seizures (PNES) emphasize the need to consider psychological factors in patients presenting with unexplained physical symptoms. This case illustrates the complex interplay between epilepsy, PNES, and depression where the diagnosis and associated disease burden of epilepsy appeared to exacerbate the patient's PNES. The patient's history of childhood and adolescent trauma, including child marriage and family issues, likely predisposed her to PNES.

An interdisciplinary approach combining neurology and psychiatry is crucial for a thorough assessment and the development of individualized treatment plans. Further, well-controlled studies are necessary to investigate the effectiveness of specific psychotherapies in treating patients with PNES [2].

This case highlights the critical need for thorough psychoeducation that goes beyond the medical management of epilepsy to include psychological support aimed at reducing anxiety and preventing the worsening of PNES. When offering psychoeducation or making adjustments to the environment for patients newly diagnosed with epilepsy, clinicians need to remain mindful of how the diagnosis and the associated stressors may contribute to the onset or exacerbation of PNES.

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