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A CASE REPORT: GENERALIZED TONIC CLONIC SEIZURE

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ABSTRACT

Generalized tonic-clonic seizures (GTCS) are defined by a sudden loss of consciousness followed by tonic stiffening and clonic jerking of the body, which is frequently caused by aberrant, excessive neuronal discharges in the brain. This case we will know about A-20-years old male patient with the chief complaints of involuntary movement of b/l upper and lower limbs for 6 episodes in the last 1 day for 3 to 4 min associated with upwelling of eye, involuntary micturition and admitted at Malla Reddy hospital during the month of November' 2025.

KEYWORDS: Generalized tonic-clonic seizure, Epilepsy, Antiepileptic drugs, Neuronal hyperexcitability, EEG, Seizure recurrence, Case study.

INTRODUCTION

Generalized tonic-clonic seizures (GTCS) and focal to bilateral tonic-clonic seizures (FBTCS) are distinguished by severe, prolonged muscle convulsions that cause metabolic stress. These convulsions frequently produce respiratory arrest and tachycardia, which result in considerable alterations in blood biomarkers. These postictal metabolic changes aid to distinguish GTCS from other causes of transient loss of consciousness (TLOC). Traditional indicators, such as prolactin and creatine kinase, have great specificity but low sensitivity. Recent research suggests that ammonia and lactate may be better predictors of real tonic-clonic seizures. Previous studies lacked validated video-EEG diagnosis and thorough event documentation. As a result, the purpose of this study is to assess metabolic alterations and biomarker trends following reported TCS using prospective video-EEG monitoring.[1]

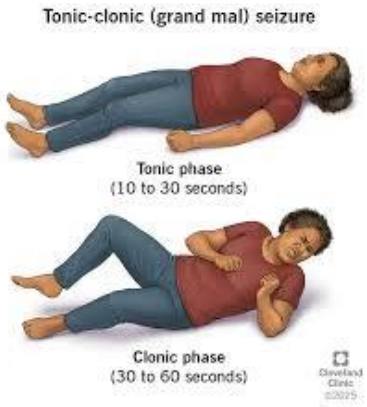

Fig.1.

CASE PRESENTATION

A-20-years old male patient with the chief complaints of involuntary movement of b/l upper and lower limbs for 6 episodes since 1 day for 3 to 4 min associated with upwelling of eye, involuntary micturition and at Malla Reddy hospital during the month of November' 2025. The patient was well known case of seizures in the past 7 years; He was on medication with levetiracetam at dose of 250mg and phenytoin at the dose of 100mg. After physical examination and lab investigations, he was diagnosed with the Generalized tonic clonic seizure.

LAB INVESTIGATIONS

In lab investigations all parameters are seems to be normal except in complete blood picture haemoglobin levels are decreased, WBC levels are increased and also ESR levels are elevated.

TREATMENT CHART

S.No	DRUG NAME	DOSE	ROA	FRQ	ACTION
1.	Inj.levetiracetam	750mg	IV	BD	Levetiracetam is given to Treat seizures
2.	Tab.phenytoin	100mg	PO	OD	Phenytoin is given to Treat Generalized tonic–clonic seizures (GTCS)
3.	Inj.cefpodoxime	1g	IV	BD	Ceftriaxone is given to treat inflammation
4.	Inj.pantoprozole	40mg	IV	OD	Pantoprazole is given to Treat excessive stomach acid reflex
5.	IVF NORMAL SALINE	0.9%	IV	75ml/1hr	Normal Saline (0.9% NaCl) is given to for restoring extracellular fluid volume

DISCUSSION

In this patient levetiracetam and phenytoin were prescribed, for treating the involuntary movement of b/l upper and lower limbs in combination with supportive care normal saline was given to balance the electrolytes cefpodoxime is prescribed for inflammation in which ESR is elevated, long term plan is to maintain remission via phenytoin and levetiracetam while the patient continued follow up. monitoring and evaluation by a clinician are recommended. patient education will hopefully allow for better outcomes in GTCS management.

CONCLUSION

A 20-year-old male patient with, of involuntary movement of b/l upper and lower limbs for 6 episodes in the past 1 day for 3 to 4 min associated with upwelling of eye, involuntary micturition was diagnosed with Generalized tonic clonic seizure.

The exact cause of GTCS may be a variety of circumstances, including missed antiepileptic prescriptions, sleep deprivation, stress, alcohol or drug usage, or underlying epilepsy that has never been completely addressed. Infections, electrolyte imbalances, and hormonal changes can all cause seizure thresholds to decline over time. Even after seizures have stopped for years, the brain may still have underlying neuronal hyperexcitability, which can reawaken. GTCS may reoccur in certain people as a result of structural brain abnormalities, a previous head injury, or a hereditary susceptibility. Sometimes there is no obvious trigger, and seizures merely reoccur owing to the natural progression of epilepsy. The medications prescribed include levetiracetam, phenytoin, cefpodoxime, pantoprazole. These medications treat the condition and promote overall health.

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