Original Research Paper

General medicine



A CASE OF PARALYSIS

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ABSTRACT Todd's paralysis is a neurological condition in which a seizure is followed by a period of temporary paralysis. The paralysis may be partial or complete but usually occurs on just one side of the body. The paralysis can last from half an hour to 36 hours, with an average of 15 hours, at which point it resolves completely. It is important to differentiate it from other paralysis as paralysis parse can be a sign of emergency condition, the management also varies in which here there is medical management required parse.

KEYWORDS: Paralysis, Todd's Palsy

INTRODUCTION

Todd's paralysis is a neurological condition in which a seizure is followed by a period of temporary paralysis. The paralysis may be partial or complete but usually occurs on just one side of the body. The paralysis can last from half an hour to 36 hours, with an average of 15 hours, at which point it resolves completely.

Case Report

A 15 year old female came to Casualty with history of two episodes of seizure 6 hours apart with last episode associated with weakness over left upper limb and lower limb. No history of loss of consciousness, No history of trauma, No history febrile episodes, No history of vomiting, No history of loss of sensation, No history of aphasia, Patient was apparently normal prior to this, Patient is a known case of seizure disorder since childhood and she is on eptoin and clonazepam. She is not a known case Type 1/Type 2 Diabetes Mellitus, Systemic Hypertension, Bronchial Asthma, Pulmonary tuberculosis, No H/O similar illness in family, On reviewing her previous past medical records it is noted that she had been on eptoin and clonazepam medication.

EXAMINATION

On Examination, Patient was Conscious , oriented and Afebrile. On Physical examination patient had no pallor / icterus / clubbing / cyanosis / lymphadenopathy /pedal edema. Patient was Normotensive with BP 120/80 mmHg and a pulse rate of 100/min. CVS-S1S2 heard, no murmur; Rs-BAE+, NVBS,; P/A-Soft, BS+;

CNS-

Table-1

14210 1					
		RIGHT	LEFT		
Power	Upper limb	5/5	0/5		
	Lower limb	5/5	0/5		
Tone	Upper limb	Normal	Hypotonia		
	Lower limb	Normal	Hypotonia		
Deep tendon Reflux		normal	brisk		
Plantar		Flexor	absent		

Investigations

All routine investigations were done.

Table-2

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Investigations	Value	Reference Value			
Hb	14.3	13.0-17.0 g/dl			
RBS	99	80-120mg/dl			
Investigati-ons	Value				
Να	141	139-146mEq/L			
K	4.06	3.5-5.1mEq/L			
Cl	101.1	98-107mEa/L			

Urine Lab Reports:

Colourless

Ph-6.5 [4.6-8.0]

Sugars-Nil

Urine preotein -Absent

Appearance-Clear

Urine pus-2-3[0-5/hpf]

Urine epithelium -Nil[Occasional/Absent]

Urine cast-NillAbsentl

Table-3

Investigati-ons	Value	Reference Value
Total WBC	7000cells/cu mm	4000-10000
neutrophils	50%	40-80%
Lymphocytes	24.4%	20-40%
Eosinophil	4.7%	1-6%
Monocytes	3.9%	2-10%
Basophils	0.4%	0-2%
platelets	2.64 lakhs/cu mm	1.5 -4 lakhs/cu mm

Management

The patient came to hospital with above mentioned complains. Patient was started Tab. Phenytoin, Tab. Levetiracetam, Tab. Sodium Valproate, Vitals monitering was done. Neurologist opinion was done. MRI was done and showed no significant changes. Neuroreview was obtained and advised to continue the same. Supportive management was only given in view of Todd's palsy.

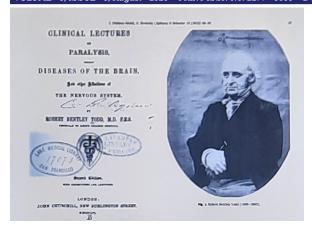
Course in the hospital, After 8 hours of admission , patient's weakness started to improve. On $15^{\rm th}$ hour Full recovery took place. The findings in CNS re-examination

Table-4

		RIGHT	LEFT
Power	Upper limb	5/5	5/5
	Lower limb	5/5	5/5
Tone	Upper limb	Normal	Normal
	Lower limb	Normal	Normal
Deep tendon Reflux		normal	Normal
Plantar		Flexor	Flexor

DISCUSSION

Todd's paralysis is a neurological condition in which a seizure is followed by a period of temporary paralysis. The paralysis may be partial or complete but usually occurs on just one side of the body. The paralysis can last from half an hour to 36 hours, with an average of 15 hours, at which point it resolves completely .



According to our literature review, the possible mechanisms reported for the pathophysiology of Todds Paralysis include

- 1] Todd's and Robertson Hypothesis-neuronal exhaustion from hypoxia or energy and/or substrate depletion due to seizure activity in a localized brain region.
- 2] Gower's hypothesis-Inhibitory neuronal discharges as a result of endogenous inhibitory substances release may also be responsible for the existence of Todd's Paralysis.

CT findings across studies are not consistent. Many CT Perfusion studies describe transient hyperperfusion in the cerebral hemisphere ipsilateral to that of the seizure focus. Brain MRI may demonstrate features consistent with a seizure, most commonly transient increased T2 signal, best appreciated on FLAIR, at the epileptic focus .Todd's Paralysis resolves on its own and requires no medical management parse.Supportive therapy can be given.

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