

ORIGINAL RESEARCH

Assessment of clinical profile of patients with epilepsy

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ABSTRACT

Background: Epilepsy is a neurological disorder characterized by recurrent, unprovoked seizures. The present study was conducted to assess the clinical profile of patients with epilepsy. **Materials & Methods:** 85 cases of epilepsy of both genders received a full range of standard tests, including metabolic parameters such as blood urea nitrogen (BUN), fasting blood sugar (FBS), liver function test (LFT), serum calcium, serum phosphate, chest X-ray, CT scan/MRI brain including all sequences (plain and contrast), and interictal electroencephalography (EEG). **Results:** Out of 85 patients, males were 47 and females were 38. Number of seizures were 2 seizures in 7, 3-10 in 23 and >10 in 55 patients. Prodromal symptoms were no symptoms in 43, headache in 11, irritability in 16, giddiness in 21, restlessness in 27, anxiety in 4 and dreamy state in 12 patients. Clinical seizure type was tonic in 21, clonic in 14, tonic-clonic in 16, myoclonic in 18, atonic in 7 and myoclonic+GTCS in 9 patients. The difference was significant ($P < 0.05$). **Conclusion:** Majority of patients had no. of seizures >10. Common type was tonic, clonic, tonic-clonic and myoclonic seizures.

Keywords: Epilepsy, seizures, myoclonic

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INTRODUCTION

Epilepsy is a neurological disorder characterized by recurrent, unprovoked seizures. A seizure is a sudden surge of electrical activity in the brain that can affect how a person appears or acts for a short time.¹Epilepsy can have various causes. Some types of epilepsy run in families, indicating a genetic component. Trauma from accidents or surgeries can cause epilepsy. Conditions like stroke, brain tumors, or infections (e.g., meningitis) can lead to epilepsy. Conditions such as autism and neurofibromatosis can be associated with epilepsy.²

An estimated 49.3/100000 people in India are believed to have epilepsy, which translates to over 500,000 cases annually.³ According to ILAE, epilepsy is focal epilepsy with or without consciousness (dyscognitive characteristics), generalised epilepsy, or epilepsy of uncertain type. The way different forms of epilepsy present differ depending on the risk factors, frequency of seizures, semiology, aetiology, and neuroradiological and electroencephalographic aspects.⁴

The clinical features of epilepsy encompass a range of symptoms and signs, primarily centered around the type and nature of seizures experienced.⁵ Some individuals experience an aura before a seizure, which

is a warning sign that can involve sensory changes (e.g., strange smells, visual disturbances), emotional changes, or *deja vu*.⁶ After a seizure, individuals often experience a period of confusion, fatigue, headache, or other symptoms as the brain recovers. This can last from minutes to hours. Seizures can sometimes be triggered by specific factors such as lack of sleep, stress, flashing lights (photosensitivity), or certain medications.^{7,8} The present study was conducted to assess the clinical profile of patients with epilepsy.

MATERIALS & METHODS

The present study was conducted on 85 cases of epilepsy of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Every patient received a full range of standard tests, including metabolic parameters such as blood urea nitrogen (BUN), fasting blood sugar (FBS), liver function test (LFT), serum calcium, serum phosphate, chest X-ray, CT scan/MRI brain including all sequences (plain and contrast), and interictal electroencephalography (EEG) (ictal and sleep deprivation EEG when required). Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 85		
Gender	Males	Females
Number	47	38

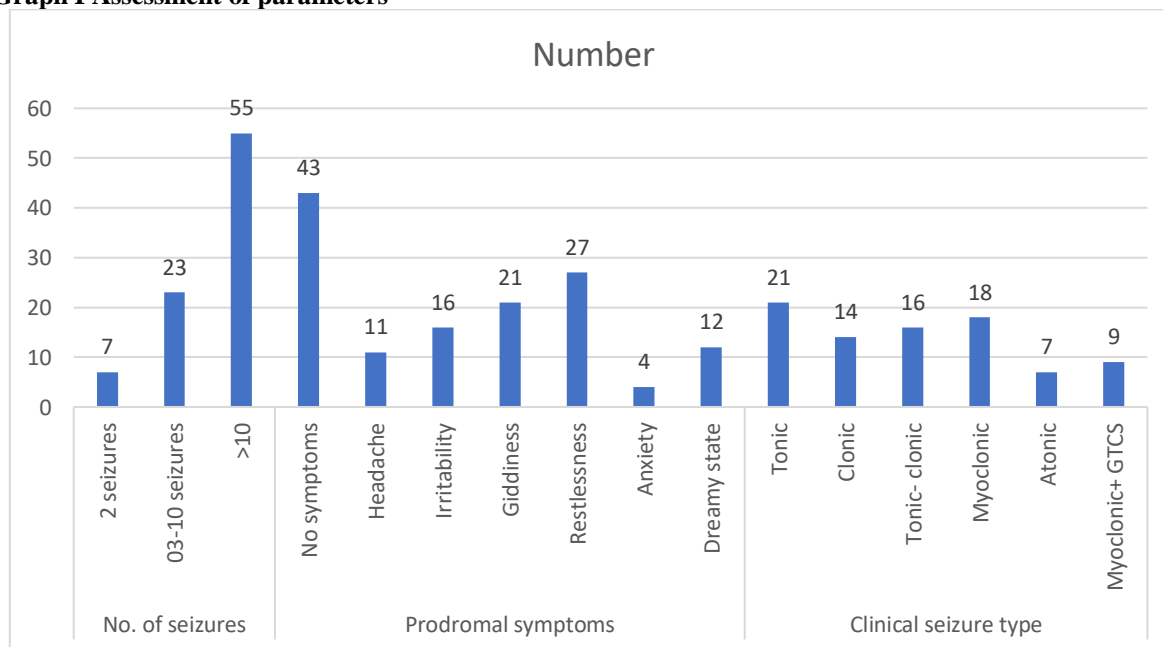
Table I shows that out of 85 patients, males were 47 and females were 38.

Table II Assessment of parameters

Parameters	Variables	Number	P value
No. of seizures	2 seizures	7	0.03
	3-10	23	
	>10	55	
Prodromal symptoms	No symptoms	43	0.05
	Headache	11	
	Irritability	16	
	Giddiness	21	
	Restlessness	27	
	Anxiety	4	
	Dreamy state	12	
Clinical seizure type	Tonic	21	
	Clonic	14	
	Tonic- clonic	16	
	Myoclonic	18	
	Atonic	7	
	Myoclonic+GTCS	9	

Table II, graph I shows that no. of seizures were 2 seizures in 7, 3-10 in 23 and >10 in 55 patients. Prodromal symptoms were no symptoms in 43, headache in 11, irritability in 16, giddiness in 21, restlessness in 27, anxiety in 4 and dreamy state in 12 patients. Clinical seizure type was tonic in 21, clonic in 14, tonic- clonic in 16, myoclonic in 18, atonic in 7 and myoclonic+ GTCS in 9 patients. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

Some individuals with epilepsy may experience difficulties with memory, attention, or mood disorders like depression or anxiety.^{9,10} Due to falls or convulsions during seizures, individuals may sustain injuries such as bruises, cuts, or fractures. Although

rare, this is a serious risk for individuals with poorly controlled seizures.^{11,12} The present study was conducted to assess the clinical profile of patients with epilepsy.

We found that out of 85 patients, males were 47 and females were 38. Samanta et al¹³ evaluated

epidemiological, clinical profile as well as radiologic characteristics in cases of NDE and to find out correlation between them. A total of 300 NDE patients more than five years of age were included and subjected to detailed clinical and radiological evaluation. Majority patients in our study were from second and third decade with characteristic male preponderance. Most patients were from rural background and majority of them (60%) had attended Neurology clinic after three to 10 episodes of seizures. Seizures in awake state and seizures without precipitating factors were more common. Headache was the most common prodromal symptom. Generalised seizure dominated over focal seizure (62:34) with tonic-clonic type (66.67%) being most common in the generalised seizure cohort. Focal seizure with secondary generalisation was seen in 70.5% cases. Drowsiness (38%) and Todd's Palsy (6%) were most and least common postictal symptoms in our study. The study also revealed abnormal computed tomography (CT) findings in 70.6% of focal seizures and 24.2% of generalised seizures. MRI, though done in 250 patients only, 53.6% were abnormal. Granulomatous lesion was dominant neuroimaging finding in the study.

We observed that no. of seizures were 2 seizures in 7, 3-10 in 23 and >10 in 55 patients. Prodromal symptoms were no symptoms in 43, headache in 11, irritability in 16, giddiness in 21, restlessness in 27, anxiety in 4 and dreamy state in 12 patients. Clinical seizure type was tonic in 21, clonic in 14, tonic-clonic in 16, myoclonic in 18, atonic in 7 and myoclonic+ GTCS in 9 patients. Kotsopoulos et al¹⁴ estimated the incidence of unprovoked seizures (US) and epilepsy in a general population in relation to age, sex, etiology and seizure type, and to identify predictive factors of the epileptic and non-epileptic seizures. The overall annual incidence was 55/100,000 and 30/100,000 for US and epilepsy, respectively. The age-specific annual incidence of US and epilepsy increased with age and reached 120/100,000 and 62/100,000 for the > or =65 years of age group, respectively. The incidence of epilepsy and US in males was higher than in females and partial seizures prevailed over generalized seizures (40 versus 9/100,000). In up to 35% of the cases with US or epilepsy, the etiology was mainly cerebrovascular disease and brain tumors. Predictors for epileptic versus non-epileptic seizures of organic origin were an epileptiform EEG pattern (OR=0.06) versus a history of hypertension (OR=2.8) or cardiovascular disease (OR=5.4). Strong predictors for seizures of non-organic origin were female sex (OR=2.2) and head injury (OR=2.4).

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that majority of patients had no. of seizures >10. Common type was tonic, clonic, tonic-clonic and myoclonic seizures.

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