



STUDY THE CLINICAL PROFILE IN PATIENT WITH EPILEPSY.

Dr. Jay Patel

Government Medical College, Surat

Haresh Parekh

Government Medical College, Surat

ABSTRACT

Aim:- To study the clinical and EEG profile in patient with epilepsy. **Methodology:-** This observational study was carried out in 113 patients, who had epilepsy. We explored many characterised of the Patients including age at onset of epilepsy, duration of epilepsy, seizure frequency in last three months, seizure type/s, previous EEG and MRI. **Result:-** This study had shown that, in 33.6% of the subjects the age of onset was between 1 – 5 years. No precipitating injury was noticed in 52.2% of the study subjects and perinatal injury was seen in 25% of the cases. The age at initial precipitating injury was at birth in 21.2% of the study subjects in this study. The duration of epilepsy was more than 5 years in majority of the study group. The duration of drug resistant epilepsy was 1 – 5 years in 64.6% of the cases in this study. Majority of the cases had seizure frequency score of more than 6. About 34.5% of the study subjects had complex partial seizures in this study. The semiology was extratemporal in 85% of the cases and temporal in 13.7% of the cases. About 69% of the study subjects had focal type of seizures and 30.9% had generalized epilepsy. **Conclusion:-** Our study enlightened about various aspect of drug resistant epilepsy patients and their treatment.

KEYWORDS :

INTRODUCTION

Epilepsy is one of the most common and serious chronic neurological disorders around the world and India. The prevalence rate of Epilepsy is 5 per 1,000 person-years and an incidence rate of 50 per 100,000 person-years.^{1,2} India, with a population of 1.3 billion, has 5-10 million people with active epilepsy. The higher prevalence of epilepsy was noted during 2nd decade of life and another reported a higher prevalence in 4th decade of life.^{6,7} The prevalence of epilepsy was higher in males compared to females. The urban areas reported higher prevalence of epilepsy than rural areas.⁸

MATERIAL AND METHODS

A study was undertaken among the patients with epilepsy attending neurology outpatient clinics and indoor wards from March 2022 to august 2022. Clearance from institution ethics committee was taken before the study was started. An informed, bilingual and written consent was obtained before they were included in to the study. Patients fulfilling the inclusion and exclusion criteria were enrolled in the study. **Inclusion criteria** Patients with epilepsy attending neurology outpatient clinics. **Exclusion criteria** Children less than 2 years of age. And Patients with pseudo-seizures.

RESULTS

Table 1. Distribution of study group according to age group

Age group	Frequency	Percent
Less than 10 years	6	5.30
11 – 20 years	41	36.28
21 – 30 years	40	35.39
More than 30 years	26	23.00
Total	113	100

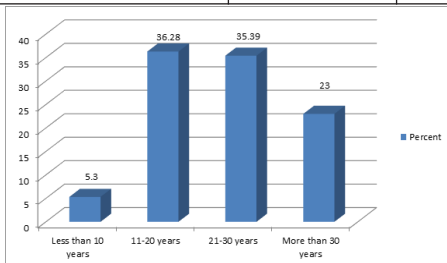


Chart 1. Distribution of study group according to age group

Table and chart no 1 shows the age distribution of the study group. About 36.28% of the subjects in this study belonged to 11 – 20 years of age group followed by 21 – 30 years (35.39%),

more than 30 years (23%) and less than 10 years (5.3%). Mean age of the subjects in this study was 23.43 years.

Table 2. Distribution of study group according to sex

Sex	Frequency	Percent
Male	80	70.79
Female	33	29.20
Total	113	100

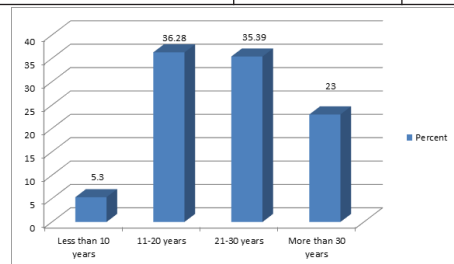


Chart 2. Distribution of study group according to sex

About 70.79% of the study subjects in this study were males and 29.2% were females.

Table 3. Distribution of study group according to age of onset of epilepsy

Age of onset of epilepsy	Frequency	Percent
Less than 1 year	7	6.19
1 – 5 years	38	33.62
6 – 10 years	17	15.04
11 – 15 years	27	23.89
16 – 20 years	17	15.04
More than 20 years	7	6.19
Total	113	100

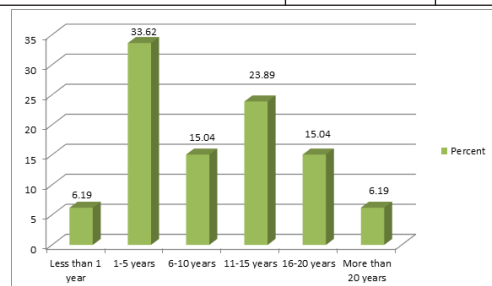


Chart 3. Distribution of study group according to age of onset of epilepsy

This study had shown that, in 33.62% of the subjects the age of onset of epilepsy was between 1 – 5 years followed by 11 – 15 years(23.89%, 6 –10 years and 16-20 years(15.04%).Mean age of onset of epilepsy in this study was 9.69 years.

Table 4. Distribution of study group according to precipitating injury

Precipitating injury	Frequency	Percent
0	59	52.21
1	12	10.61
2	8	7.07
3	26	23.00
4	5	4.42
5	3	2.65
Total	113	100

0)None, 1)Febrile seizure, 2)Meningo-encephalitis, 3)Perinatal injury, 4)Head injury, 5)Others

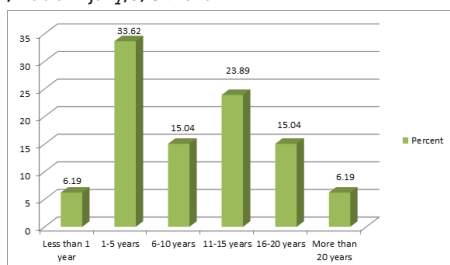


Chart 4. Distribution of study group according to precipitating injury

No precipitating injury was noticed in 52.22% of the study subjects. Perinatal injury was seen in 23% of the cases, Meningoencephalitis in 7.07% of the study group, febrile seizure in 10.61% of the study subjects and Head injury in 4.42% of the study subjects.

Table 5. Distribution of study group according to age at initial precipitating injury

Age at initial precipitating injury (Yrs)	Frequency	Percent
Birth	24	21.23
Less than 1 year	7	6.19
1-10 years	16	14.15
More than 10 years	3	2.65
None	63	55.75
Total	113	100

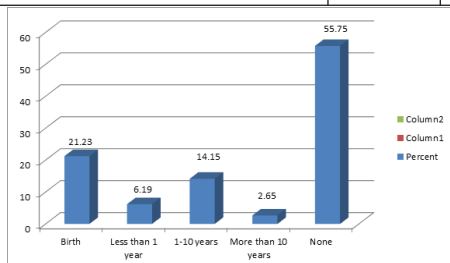


Chart 5. Distribution of study group according to age at initial precipitating injury

No precipitating injury was noted in 55.75% of the cases, at birth 21.23% of the cases. 1 – 10 years in 14.15% of the cases, less than 1 year in 6.19% of the study subjects, and > 10years in 2.65% of the cases.

Table 6. Distribution of study group according to duration of epilepsy

Duration of epilepsy	Frequency	Percent
0 – 5 years	23	20.35
6 – 10 years	29	25.66
11 – 15 years	20	17.69

16 – 20 years	22	19.46
More than 20 years	19	16.81
Total	113	100

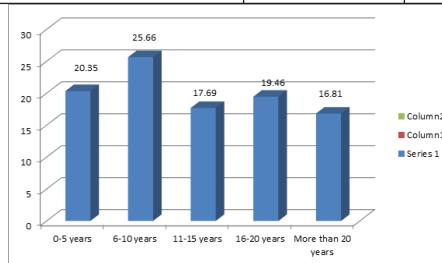


Chart 6. Distribution of study group according to duration of epilepsy

The duration of epilepsy was 6 – 10 years in 25.66% of the cases, 16-20 years in 19.46% of the cases, 11 – 15 years in 17.69% of the cases, more than 20 years in 16.81% of the cases, and 0 – 5 years in 20.35% of the cases. Mean duration of the epilepsy was 13.69 years.

DISCUSSION:-

Epilepsy is one of the most common and serious chronic neurological disorders around the world and in India. India, with a population of 1.3 billion, has 5-10 million people with active epilepsy.⁴ Treatment with antiepileptic drugs remains the mainstay of therapy in patients with epilepsy.

Antiepileptic drug (AED) therapy is the mainstay of epilepsy management which usually start with accurate diagnosis of epilepsy, seizure types and epilepsy syndromes. Many studies in patients with newly diagnosed epilepsy have reported that that medical therapy is effective in approximately two third of patients with epilepsy. Rest one third of patients do not adequately respond to antiepileptic drugs.^{9,10}

Age group

Majority of the subjects in this study belonged to 11 – 20 years of age group. In a study of persistent seizure, the mean age of the patients was 23.4 years in this study.⁵² In a study by Schiller the mean age of the patients was 31.8 years.⁵⁸

Sex

Males outnumbered females in this study, About 70.79% of the study subjects in this study were males. A study by Mukherjee et al, 72.6% of the seizure patients were males.⁵² A study by Tripathi et al, had found 71% of the cases were males in North India.⁵⁹ Ramos et al had noted 59% of the males and Wirell et al had found 51% of the cases were males.^{60, 61} All recent studies on epilepsy from india showed male predominance.after all these studies, it suggested that gender might have some propensity to get drug resistant.

Age of onset

This study had shown that, in 33.62% of the subjects the age of onset of epilepsy was between 1 – 5 years ,Mean age of onset of epilepsy in this study was 9.69 years and median age of the onset of seizure patients was 10 years, A study by Kwaan et al, had found median age of the onset of seizure was 26 years.⁹

Precipitating injury & Age at precipitating injury

No precipitating injury was noticed in 52.22% of the study subjects. Perinatal injury was seen in 23% of the cases, Meningoencephalitis in 7.07% of the study group, febrile seizure in 10.61% of the study subjects and Head injury in 4.42% of the study subjects, A study by Mukharjee et al, 16.4% of the patients had history of febrile seizure in refractory seizure.

In this study precipitating injury was noted at birth in 21.23% of the cases. 1 – 10 years in 14.15% of the cases, less than 1

year in 6.19% of the study subjects, and >10years in 2.65% of the cases.

Duration of epilepsy

The duration of epilepsy was more than 5 years in majority of the study group. Mean duration of the epilepsy in this study was 13.69 years, no studies were available to compare these studies.

Duration of drug resistant epilepsy

The duration of drug resistant epilepsy was 1 – 5 years in 64.6% of the cases, Mean duration of the drug resistance epilepsy was 6.88 years in this study.

The studies were not available to compare these results.

Seizure score frequency

In this study majority of the cases had seizure frequency score of more than 6. Mean seizure frequency score was 7.58 and the median seizure frequency score was 7 in this study. A study by Mukherjee et al, had shown that, the median seizure frequency score was 3 in persistent seizure patients.

Type of seizure

About 69.02% of the study subjects had focal type of seizures and 30.97% had generalized epilepsy. A study by Mukherjee et al had shown that, 46.5% of persistent seizure patients had focal onset seizures and 42.5% had generalized seizure.⁵² A study by Schiller et al had found that, 25% of the patients had generalized epilepsy.⁵⁸

Seminology

The semiology was extratemporal in 85.05% of the cases, temporal in 13.79% of the cases, The studies were not found to compare these findings.

Neurological deficit

About 80.53% of the study subjects in this study had no neurological deficit, 8.84% had hemiparesis, 6.19% had visual deficit, and 4.42% had diplopia. A study by Mukherjee et al had shown that, 71.25% of the persistent seizure patients had headache, vertigo and other neurological complaint in any point of time.⁵²

Learning disability & Mental retardation

The learning disability was present in 28.31% of the cases in this study. None of the studies were available to compare these findings. About 28.31% had mental retardation in this study. The studies were not available to compare these findings. A study by Mukherjee et al had shown that, 42.5% had cognitive decline and 38.4% had psychiatric symptoms.⁵²

Inter ictal discharge

This study had shown that, about 21.23% of the study subjects had frontal and generalized interictal discharge, 14.15% had temporal discharge, 7.96% had occipital discharge, and 14.15% had no discharge and 8.84% of the cases had combination of the frontal and generalized interictal discharges. A study by Mukherjee et al, had shown that 27.4% had focal discharge and 35.6% had generalized discharge.⁵²

MRI abnormality

About 53.98% had normal findings, 33.62% of the patients had gliosis, 5.3% of the patients had MTS, 4.42% of the patients had FCD, 2.65% of the patients had other abnormality. A study by Mukherjee et al, had shown 54.8% had normal MRI finding and 6% had gliosis, 6% had MTS, 1% had meningitis.

Summary

- Epilepsy is one of the most common and serious chronic neurological disorders around the world and India.
- Antiepileptic drug (AED) therapy is the mainstay of

epilepsy management which usually start with accurate diagnosis of epilepsy, seizure types and epilepsy syndromes.

- Majority of the subjects in this study belonged to 11 – 20 years of age group.
- Males outnumbered females in this study.
- This study had shown that, in 33.6% of the subjects the age of onset was between 1 – 5 years.
- No precipitating injury was noticed in 52.2% of the study subjects and perinatal injury was seen in 25% of the cases.
- The age at initial precipitating injury was at birth in 21.2% of the study subjects in this study.
- The duration of epilepsy was more than 5 years in majority of the study group.
- The duration of drug resistant epilepsy was 1 – 5 years in 64.6% of the cases in this study.
- Majority of the cases had seizure frequency score of more than 6.
- About 34.5% of the study subjects had complex partial seizures in this study.
- The semiology was extratemporal in 85% of the cases and temporal in 13.7% of the cases.
- About 69% of the study subjects had focal type of seizures and 30.9% had generalized epilepsy.
- About 80.5% had no neurological deficit, 8.8% had hemiparesis, 6.19% had visual deficit, 4.42% had diplopia.
- The learning disability was present in 28.3% of the cases in this study.
- About 28.3% had mental retardation in this study.
- This study had shown that, about 21.2% of the study subjects had frontal and generalized interictal discharge, 14.1% had temporal discharge, 7.9% had occipital discharge.
- MRI had shown that, 33.6% of the patients had gliosis in this study. About 5.3% had MTS and 4.4% had FCD.