

Assessment of Clinical Profile of epileptic patients

Anand Kumar Singh¹, Pratyush Kumar^{1*}, Pankaj Kr Mishra²

¹Assistant Professor, Department of Medicine, Mayo Institute of Medical Sciences, Gadia, Barabanki, Uttar Pradesh, India.

²Professor, Community medicine Department, Mayo Institute of Medical Sciences, Barabanki, Uttar Pradesh, India.

Received: 10-12-2020 / Revised: 15-02-2021 / Accepted: 20-03-2021

Abstract

Background:Epilepsy is a common and diverse disorder with many different causes. The present study was conducted to assess clinical profile of patients with epilepsy.**Materials & Methods:**80 patients diagnosed with epilepsy of both genders were clinically evaluated. Reason of epilepsy, clinical features etc. was recorded.**Results:** Out of 80 patients, males were 50 and females were 30. Etiology was infectious in 20, vascular in 11, metabolic in 7, alcoholic in 8, idiopathic in 14, neoplastic in 15 and arachnoid cyst in 5 cases. The difference was significant (P< 0.05). Age at first seizure was 30.4 years, frequency of seizure per year was 62.2, duration of seizure before starting treatment was 4.1 years and family history of epilepsy was observed in 36. **Conclusion:**Most common etiology of epilepsy was infectious followed by vascular, metabolic, alcoholic, idiopathic, neoplastic and arachnoid cyst.

Keywords: Epilepsy, Seizures, Metabolic

This is an Open Access article that uses a fund-ing model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

Introduction

Epilepsy is a common and diverse disorder with many different causes. Outcomes are varied with 60—70% of newly diagnosed people rapidly entering remission after starting treatment, and 20—30% developing a drug-resistant epilepsy with consequent clinical and psychosocial distress[1,2].Epileptic seizures (ES) and nonepileptic seizures (NES) can occur in the same patient. Eight to 60% of patients with NES may also have a history of ES, with most series reporting 10 to 25 percent. Clinical differentiation between ES and NES is often difficult. Patients with NES may be improperly treated with antiepileptic drugs (AEDs) for decades or intubated for nonepileptic convulsive status. Psychologic or psychiatric treatment is often delayed[3,4].Among 50 million people with epilepsy worldwide, 90% of them are found in developing Countries and 90% of these patients are not receiving adequate treatment. They could live normal lives if treated. This huge treatment gap may be due to the limited knowledge, poverty, cultural beliefs, stigma, poor health delivery infrastructure like inadequate supplies of antiepileptic drugs, and shortage of trained

health care workers[5].Acute symptomatic seizures are clinical seizures occurring in close temporal relationship with an acute central nervous system (CNS) insult, which may be metabolic, toxic, structural, infectious, or inflammatory that may require urgent attention and treatment to reverse potentially damaging causes [6].Such seizures are considered to be an acute manifestation of the insult and may not recur when the underlying cause has been removed or the acute phase has elapsed[7].The present study was conducted to assess clinical profile of patients with epilepsy.

Materials & Methods

The present study was conducted among 80 patients diagnosed with epilepsy of both genders. All were informed and their consent was obtained. Data such as name, age and gender etc. was recorded. All patients were clinically evaluated. Reason of epilepsy, clinical features etc. was recorded. Results thus obtained were assessed statistically. P value less than 0.05 was considered significant.

Table 1:Distribution of patients

Total- 80		
Gender	Males	Females
Number	50	30

Table 1 shows that out of 80 patients, males were 50 and females were 30.

*Correspondence

Dr. Pratyush Kumar

Assistant Professor, Department of Medicine,
Mayo Institute of Medical Sciences, Barabanki, Uttar Pradesh, India.
E-mail: pratyushsharma26@gmail.com

Table 2: Etiology of Seizures

Etiology	Number	P value
Infectious	20	0.01
Vascular	11	
Metabolic	7	
Alcoholic	8	

Idiopathic	14
Neoplastic	15
Arachnoid cyst	5

Table 2 shows that etiology was infectious in 20, vascular in 11, metabolic in 7, alcoholic in 8, idiopathic in 14, neoplastic in 15 and arachnoid cyst in 5 cases. The difference was significant (P< 0.05).

Table 3:Demographic profile of the patients

Parameters	Number
Age at first seizure	30.4
Frequency of seizure per year	62.2
Duration of seizure before starting treatment(Year)	4.1
Family history of epilepsy	36

Table 3 shows that age at first seizure was 30.4 years, frequency of seizure per year was 62.2,duration of seizure before starting treatment was 4.1 years and family history of epilepsy was observed in 36.

Discussion

Acute symptomatic seizures are considered to be an acute manifestation of the insult and may not recur when the underlying cause has been removed or the acute phase has elapsed. The knowledge of the etiologic risk factors of acute symptomatic seizures in third-world countries will invariably contribute to the effort aimed at preventing and managing medical conditions frequently complicated by seizures[8].The differential diagnosis of a single seizure includes psychogenic non-epileptic events, cardiac and neurogenic syncope, transient ischemic attacks, sleep disorders,and panic attacks. It is important to distinguish all differentials as they do not have the same medical and social consequence of epilepsy[9].Patients with first onset seizures are common in the tertiary care hospital yet little is known regarding the management of these patients considering the availability of laboratory investigations, EEG, CT scan and MRI. The duration of seizure freedom following first-ever seizure substantially influences the risk of recurrence[10].The present study was conducted to assess clinical profile of patients with epilepsy.In present study, out of 80 patients, males were 50 and females were 30. Ong et al[11] a total of 100 consecutive adult patients above 18 years of age were included. GTCS was the most common type of seizure accounted for 63% and focal seizures in 37% cases. Infections(35%) were the most common cause (Neurocysticercosis 14%, Tuberculoma 9%, Others 12%) followed by Vascular (29%) causes, Idiopathic seizures (17%), Metabolic (7%), Alcohol related seizures (11%). Males presented 2.8 times more often than females to the tertiary care hospital as first onset seizure. Peak incidence was seen in 26- 45years age group.We observed that etiology was infectious in 20,vascular in 11, metabolic in 7,alcoholic in 8, idiopathic in 14, neoplastic in 15 and arachnoid cyst in 5 cases. Kafle et al [12] included a total of 150 patients in the study. There were 76 (50.7%) male and 74(49.3%) female patients. 30(20%) patients reported having one or more precipitants for their seizure. The precipitants in decreasing order were sleep deprivation, alcohol intake, emotional stress, fatigue and hunger. The presence of precipitants was significantly associated with seizure frequency (p=0.004). The mean duration of seizure before treatment in years was 2.26±3.5. The mean number of seizures before treatment was 24.11±32.92. Mean frequency of seizures after treatment per year was 80.34±162.Epilepsy knows no geographic, social, or racial boundaries and occurs in men and women and affects all ages, but is more frequently diagnosed in infancy, adolescence, and old age. People with low socioeconomic status mostly living in the rural areas are found to be more affected[13]. Studies have shown that neurocysticercosis and calcified lesions are the commonest radiological findings. People suffering from epilepsy in our country do not have good quality of life because of their poor epilepsy control[14].The shortcoming of the study is small sample size.

Conflict of Interest: Nil Source of support:Nil

Conclusion

Most common etiology of epilepsy was infectious followed by vascular, metabolic, alcoholic, idiopathic, neoplastic and arachnoid cyst.

References

1. Krumholz A, Wiebe S, Gronseth G, Shinnar S, Levisohn P, Ting T, et al.Practice parameter: Evaluating an apparent unprovoked first seizure in adults (an evidencebased review): Report of the Quality Standards Subcommittee of the American Academy of Neurology and the American Epilepsy Society. *Neurology* 2007;69(21):1996–2007.
2. Sridharan R, Murthy BN. Prevalence and pattern of epilepsy in India. *Epilepsia* 1999; 40(5):631-6.
3. Nwani PO, Nwosu MC, Nwosu MN. Epidemiology of Acute Symptomatic Seizures among Adult Medical Admissions. *Epilepsy Research and Treatment* 2016:98
4. Tardy B, Lafond P, Convers P, Page Y, Zeni F, Viallon A, Laurent B, Barral FG, Bertrand JC. Adult first generalized seizure: etiology, biological tests, EEG, CT scan. *The American Journal of Emergency Medicine* 1995;13(1):1-5.
5. Quraishi SM, Rani U, Prasanthi P, Sudhakar P. Etiological Profile of New Onset Seizures. *Journal of Evidence based Medicine and Healthcare* 2015;2:7032- 7044.
6. Annegers JF, Hauser WA, Lee J, Rocca WA. Incidence of Acute Symptomatic Seizures in Rochester, Minnesota, 1935-1984. *Epilepsia* 1995;36(4):327-33.
7. Thapa L, Shrestha A, Paudel R, Pokharel BR, Ghimire A, Shilpakar R, Dewan KR, Rana PV. Clinical and socioeconomic factors among epileptic patients in Nepal: A big challenge. *Journal of College of Medical SciencesNepal* 2012; 7(2):29-33.
8. Narayanan JT, Murthy JM. New-onset acute symptomatic seizure in a neurological intensive care unit. *Neurology India* 2007;55(2):136.
9. Medina MT,Rubio-Donnadieu F. Neurocysticercosis as the main cause of late-onset epilepsy in Mexico. *Archives of Internal Medicine* 1990;150(2):325-7.
10. Ramamurthi B, Ramamurthi R, Vasudevan MC, Sridhar K. The changing face of tuberculomas. *Annals of the Academy of Medicine, Singapore* 1993;22(6):852-5.
11. Ong S, Talan DA, Moran GJ, et al. Neurocysticercosis in Radiographically Imaged Seizure Patients in U.S. Emergency Departments. *Emerging Infectious Diseases* 2002; 8(6): 608-613.
12. Kafle DR.Clinical Profile of Patients with Epilepsy. *Journal of Nobel Medical College.* 2014;3(1):31-4.
13. Fisher RS, van Emde Boas W, Blume W, Elger C, Genton P, et al. Epileptic seizures and epilepsy: definitions proposed by the International League Against Epilepsy (ILAE) and the International Bureau for Epilepsy (IBE).*Epilepsia* 2005; 46: 470-472.
14. Hauser WA,Annegers JF.Descriptive epidemiology of epilepsy. *Mayo Clin Proc.*1996; 71: 576-586.