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Assessment of cases of epilepsy in 82 patients

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Abstract

Background: Epilepsy is a serious neurologic condition associated with stigma, psychiatric comorbidity and high economic costs. The present study was conducted to assess epilepsy in patients.

Materials & Methods: 82 patients of epilepsy of both genders were included. A thorough clinical examination was performed and CT scan, magnetic resonance imaging (MRI) and electroencephalography was done.

Results: Out of 82 patients, males were 40 and females were 42. Common findings were focal seizures in 40%, generalized tonic clonic seizures in 25%, impaired consciousness in 20% and multiple seizures in 15%. The difference was significant ($P < 0.05$). Common etiology was post traumatic in 22%, vascular in 45%, degenerative in 23% and non-identified in 10%. The difference was significant ($P < 0.05$).

Conclusion: Common findings were focal seizures, generalized tonic clonic seizures, impaired consciousness and multiple seizures.

Keywords: Epilepsy, Neurological, Seizures

Introduction

Seizures are one of the commonest causes of transient loss of consciousness presenting to acute medical services and epileptic seizures are the commonest cause of short admissions among the neurological conditions^[1]. While not all seizures are associated with lost consciousness, most requiring acute medical care will involve impaired awareness and responsiveness. Approximately 1% of the UK population are treated for epilepsy, with around 0.5 new cases per 1,000 population every year^[1]. Acute medical and emergency department physicians need a good working knowledge of the management of seizures and to be aware of seizure mimics^[2].

Epilepsy is a serious neurologic condition associated with stigma, psychiatric comorbidity and high economic costs. The WHO's 2010 Global Burden of Disease study ranks epilepsy as the second most burdensome neurologic disorder worldwide in terms of disability-adjusted life years^[3]. Epilepsy is a group of [neurological condition](#) characterized by seizures that are episodes that can vary from brief and nearly undetectable periods to long periods of vigorous shaking. Estimates of the prevalence and incidence of epilepsy worldwide vary considerably, likely reflecting differences in measurement and reporting, along with clinical characteristics such as etiology and seizure type^[4]. Previous systematic reviews of the prevalence of epilepsy focused on specific regions^[3]. Over the last decades, considerable efforts have been made to develop dedicated quality of life assessment in patients with epilepsy and to assess the impact of demographic, clinical, psychosocial factors and epilepsy-associated comorbidities on quality of life^[5]. The present study was conducted to assess epilepsy in patients.

Materials & Methods

The present study was conducted among 82 patients of epilepsy of both genders. All were informed regarding the study and written consent was obtained.

General information such as name, age, gender etc. was recorded. In all patients, causes, and symptoms were recorded. A thorough clinical examination was performed in all. Investigations such as CT scan, magnetic resonance imaging (MRI) and electroencephalography was done. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

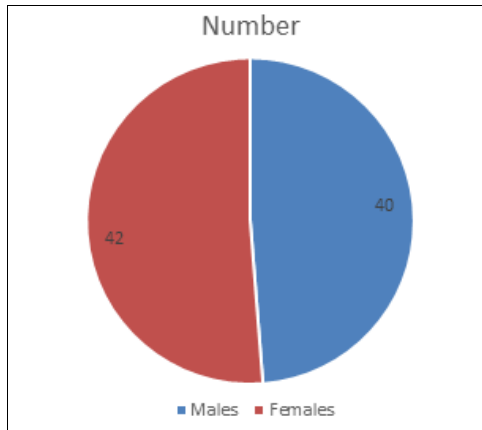
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Results

Table 1: Distribution of patients

Total- 82		
Gender	Males	Females
Number	40	42

Table I, graph I shows that out of 82 patients, males were 40 and females were 42.



Graph I: Distribution of patients

Table II: Clinical profile in patients

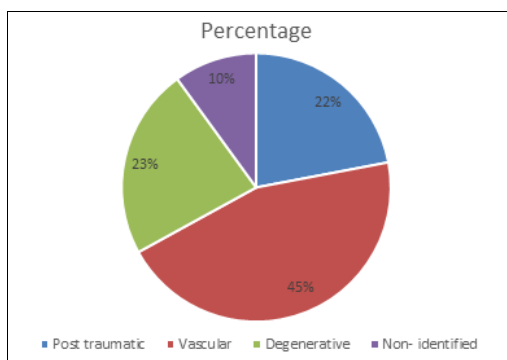
Clinical profile	Percentage	P value
Focal seizures	40%	0.03
GTCS	25%	
Impaired consciousness	20%	
Multiple seizures	15%	

Table II shows that common findings were focal seizures in 40%, generalized tonic clonic seizures in 25%, impaired consciousness in 20% and multiple seizures in 15%. The difference was significant (P< 0.05).

Table III: Assessment of etiology in patients

Etiology	Percentage	P value
Post traumatic	22%	0.01
Vascular	45%	
Degenerative	23%	
Non- identified	10%	

Table III, graph II shows that common etiology was post traumatic in 22%, vascular in 45%, degenerative in 23% and non- identified in 10%. The difference was significant (P< 0.05).



Graph II: Assessment of etiology in patients

Discussion

Transient loss of consciousness (T-LOC) is a common complaint that may present to many different specialties under various labels, including ‘blackouts’, ‘seizure’, ‘blank spells’, and ‘falls’ [6]. The term T-LOC itself is non-specific and includes all causes of self-limited loss of consciousness, regardless of mechanism. Syncope is the commonest cause of T-LOC, followed by epileptic seizures and non-epileptic seizures [7]. A thorough history including a witness account will allow a diagnosis to be made in the majority of patients. Distinguishing seizures from syncope and functional non-epileptic seizures can be difficult, but these are equally important diagnoses to make [8]. Patients with functional non-epileptic seizures are often exposed to inappropriate interventions and treatment with antiepileptic drugs. Diagnosing functional non-epileptic attack disorder and its management are covered in detail elsewhere in this issue [9]. The present study was conducted to assess epilepsy in patients.

In present study, out of 82 patients, males were 40 and females were 42. Hauser *et al.* [10] in their study, a total of 222 studies were included (197 on prevalence, 48 on incidence). The point prevalence of active epilepsy was 6.38 per 1,000 persons (95% confidence interval, while the lifetime prevalence was 7.60 per 1,000 persons. The annual cumulative incidence of epilepsy was 67.77 per 100,000 persons while the incidence rate was 61.44 per 100,000 person-years. The prevalence of epilepsy did not differ by age group, sex, or study quality. The active annual period prevalence, lifetime prevalence, and incidence rate of epilepsy were higher in low to middle income countries. Epilepsies of unknown etiology and those with generalized seizures had the highest prevalence.

We observed that common findings were focal seizures in 40%, generalized tonic clonic seizures in 25%, impaired consciousness in 20% and multiple seizures in 15%. Brusturean *et al.* [11] determined the impact of different clinical and demographic factor upon the quality of life. The study group was comprised by 113 patients diagnosed with epilepsy. All patients filled the quality of life in epilepsy - QQLIE 31. Age was negatively correlated with almost all QQLIE items (p0.05). The employment and economic status were correlated with almost all QQLIE items.

We found that common etiology was post traumatic in 22%, vascular in 45%, degenerative in 23% and non- identified in 10%. Harnod *et al.* [12] found that cumulative incidence of epilepsy was significantly high in the migraine cohort. The aHR for developing epilepsy in the migraine cohort was 1.85. The aHR for developing epilepsy in the female migraineurs was significantly different compared with that of the non-migraine cohort and male migraineurs. The incidence of developing epilepsy was increased in patients aged 20–44 years, yielding an aHR of 2.14. The comorbidity-specific aHR for developing epilepsy associated with migraine was 2.33 in patients without any comorbidities, and 1.73 in those with comorbidities.

According to the National Institute for Health and Care Excellence (NICE) guidance, anyone with a suspected first seizure should be referred for specialist assessment and seen within 2 weeks. Most patients with a single self-terminating seizure who have made a full recovery can be managed as outpatients through local first-seizure pathways [13]. Antiepileptic medication is not indicated for a single seizure, unless investigations indicate a high risk of seizure

recurrence. Other than in status epilepticus, starting antiepileptic drugs should ideally be a specialist decision. In the interim, the patient should be given basic safety and driving advice^[14].

Conclusion

Authors found that common findings were focal seizures, generalized tonic clonic seizures, impaired consciousness and multiple seizures.

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