



CORRELATION OF EPILEPSY IN CHILDREN WITH FAMILY HISTORY OF EPILEPSY

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ABSTRACT **INTRODUCTION :** Epilepsy is an important health problem in developing countries. The unpredictability of seizure recurrence is a constant threat to the patient with epilepsy and his or her family. The risk of premature death in people with epilepsy is two to three times higher than it is for the general population. Interaction of various genetic, environmental and physiological factors gives rise to epilepsy
AIM/OBJECTIVE:- To find out the correlation of epilepsy in children with family history of epilepsy. And To evaluate the importance of family history in an epileptic child.
MATERIAL & METHOD:- All children between age of 1 month to 18 years with two or more unprovoked seizures attending the paediatrics emergency and OPD of SAMC & PGI in 1½ year duration were enrolled in the study. Detailed history and clinical examination was done for all the patients included in the study.
RESULT:- In our study, History of epilepsy in family was found to be positive in 8.33% of the patients which was significant for occurrence of epilepsy in children.
CONCLUSION:- The study shows a positive correlation of family history with the epilepsy occurrence in children.

KEYWORDS : Epilepsy, genetic factors, family history**INTRODUCTION**

In developing countries epilepsy is a major and important health problem. The international classification of epileptic seizures and epileptic syndromes 1985/1989⁽¹⁾ has defined epileptic syndrome as an epileptic disorder characterized by a cluster of signs and symptoms customarily occurring together. Epilepsy is characterized by its episodic and chronic nature. The seizures usually produce brief periods of disruption, which include phenomena such as loss of consciousness, bodily distortion, injuries, unusual and often frightening psychological experiences as well as urinary and bowel incontinence. The unpredictability of seizure recurrence is a constant threat to the patient with epilepsy and his or her family. Apart from the episodic seizures, there are many other ever-present factors – social, psychological, behavioral, educational, cultural and so forth which affect the lives of children with epilepsy, their families and their close social networks. Epilepsy is a complex neurological condition with many possible co-morbid features.⁽²⁾ Interaction of various genetic, environmental and physiological factors gives rise to epilepsy. For the diagnosis of idiopathic epilepsy first step is a questionnaire establishing the positive family history⁽³⁾. Among the first-degree relatives, history of seizures is a strong predictor of genetic epilepsy⁽⁴⁾.

Aim & Objective

To find out the correlation of epilepsy in children with family history of epilepsy.

To evaluate the importance of family history in an epileptic child.

MATERIAL & METHOD

The study was a prospective observation study approved by the ethical committee of Sri Aurobindo medical college and Post graduate Institute, Indore (M.P.), and an informed written consent was obtained from parents of each patient. The present study was conducted in the Department of paediatrics. It was a 1½ year duration study in which 144 patients were taken for study and were selected from paediatrics OPD and emergency. Detailed history with past history of seizures and family history of epilepsy was also noted in all patients. Complete neurological examination was carried out in all the patients.

Inclusion criteria:

Any child between age of 1 month-18 year with two or more unprovoked seizures and has undergone neuroimaging i.e. CT/MRI Brain.

Exclusion criteria:

- Children with
1. Febrile seizures.
2. Acute symptomatic seizures.

3. Progressive neurological disorders.
4. Who could not undergo neuroimaging.

RESULT

A total of 144 cases aged between one month to eighteen years of both genders visiting OPD and emergency of paediatrics department were taken. The **table-1** shows the age and sex distribution of the patients. Almost equal age distribution was there in the different age groups. In our study 54.16% of children were male and 45.83% were female.

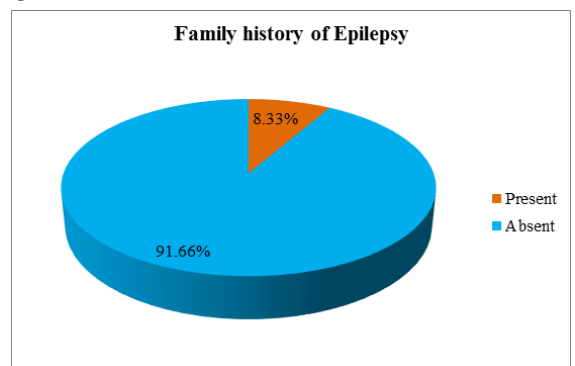
Table No. 1 Age / sex distribution of patients studied

Age Group	Male	Female	Total No. of Patients
	No.	No.	
1 months – 3 years	28	8	36(25%)
4 years – 6 years	12	22	34(23.61%)
7 years – 9 years	18	14	32(22.22%)
10 years – 12 years	14	8	22(15.27%)
13 years -18 years	6	14	20(13.88%)
Total	78(54.16%)	66(45.83%)	144(100%)

In the study population of 144, History of epilepsy in family was found in 12 patients and was negative in 132 patients. So family history was found to be positive in 8.33% of the patients.(Table-2 & Figure 1)

Table No. 2 Family History of Epilepsy

Family History of Epilepsy	Total No. of Patients	Percentage
Family history of epilepsy present	12	8.33%
No family history of epilepsy	132	91.66%
Total	144	100.00

Figure 1

DISCUSSION

This study was conducted in Department of paediatrics, SAIMS & PG Institute, Indore, (M.P.). A total of 144 subjects were included in the study.

In our study we found that the family history of epilepsy in an epileptic patient has a positive correlation with the onset of epilepsy. We found that there is 8.33% of patients of epilepsy having positive family history of epilepsy. This is also shown by many other studies. Aggarwal et al⁽⁵⁾ also reported a positive family history in 9.9% of such patients in their study while Paola Scarpa and Bruno Carassini⁽⁶⁾ also reported positive correlation of family history with epilepsy in 21.45% of the patients.

In present study we found that out of 144, family history of epilepsy was found in 12 patients and was negative in 132 patients. So family history was found to be positive in 8.33% of the patients. This signifies that family history of epilepsy is an important risk factor of epilepsy and our study supports all the previous studies done regarding this.

CONCLUSION

The purpose of this study was evaluation of the family history of epilepsy in children with epilepsy. Worldwide epilepsy affects fifty million people. According to a WHO survey epilepsy accounts for one percent of the global burden of the disease.

It has been found that family history of epilepsy is a strong predictor of epilepsy in children and it is also an important risk factor for genetic epilepsy.

From the above findings we conclude that probably higher rate of consanguineous marriages in our population contributes to the genetic epilepsy. The assessment of family history in a new case of epilepsy is important and crucial step in classification of epilepsy and also for determination of an etiology.

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