

Prevalence and Severity of Epilepsy in District Chiniot, Pakistan

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Abstract

Epilepsy is a medical and social disorder in developing countries like Pakistan. In Pakistan very little work done on epilepsy. It was checked in district Chiniot, Pakistan. 600 suffered persons were studied in which 19.5% females and 80.5% males were found suffering from this disorder. 22.5% patients belong to urban while 77.5% patients belong to the rural area. 2.5% premature while 1.25% post-term people were suffering. 76.5% while 23.5% were not aware to this disorder. Results of Seizure type showed 62.5% Atonic, 55% Myoclonic, 10% Tonic-clonic and PNES while 5% patients were prolonged febrile, Infantile and Petitmal. Age is a big factor in this disease occurrence 16.25% patients were in age of (0-2 years), 12.5% patients in age of (3-8 years), 46.25% patients in age of (9-18 years), 22.5% patients in age of (19-45 years), 2.5% patients were in age of (46-65 years) and above age of 66 years no patients were found. In treatment, 80% people were taking medical treatment while remaining 20% were without any medical treatment. 46.25, 17.5, 36.25% people were getting treatment from neurologist, primary-care physician and family based treated, respectively. So it can be concluded from this study that males are more suffering from disorder. There is no facility in hospitals of Chiniot against this disorder. People are not aware, how to treat with this so it is a big cause of increasing epilepsy. According to research, 1 to 2 percent of people from the whole population of the district are suffering from this disorder.

Keywords: Epilepsy; Etiology; Frequency; Developing countries; Prevalence; Seizure; Marriage and children; Psychological problems; Population based of epidemiology; Chiniot

Introduction

These days' people must tolerate many types of anxiety in the fast routine life and many people in the world are suffering from various neurological disorder. Epilepsy is the most common neurological situations. According to WHO around 50 million people worldwide suffering from epilepsy, in developing countries, almost 80% of people live with epilepsy. There is 3 times more premature death for normal people with risk of epilepsy. 3 quarters of people with epilepsy living in developing countries do not get the treatment they need. The global prevalence of epilepsy is generally taken as between 5 and 10 cases per 1000 persons in (WHO 2019). Few studies have come from developing countries [1]. Few epidemiological studies of epilepsy are available from Pakistan [2]. Epilepsy has not been thoroughly investigated in Pakistan. In Pakistan epilepsy has a huge prevalence rate of 9.98% per 1,000 populations, and is twice as common in rural areas [3]. The population of Pakistan exceeds 140 million, whereas the entire number of trained neurologists in Pakistan is estimated to be less 30. About 350 neurologists of Pakistani origin in North America or other countries (Data collected by PNIS from various directories of neurologists 2001) are considered. About 1.38 million people suffered from epilepsy in Pakistan in 2001, which makes it only 1 neurologist available for every 46200 suffered of epilepsy [4]. Seizure is a quick attack on kinetic signals of the brain in which these are discharge abnormally with the disturbance of senses. There are many types of seizure. Epilepsy is complex of two or more seizures which is affiliated with the central nervous system. It was one of the early brain disorders to be illustrated. It was noted in ancient Babylon more than 3,000 years ago about epilepsy. It is an ancient disease, Hippocrates (460-377 BC) defined it as a chronic functional disease which having

no organic base. It has been estimated that its spread rate is greater in countryside areas than urban areas. About 25% cases are genetic [5]. So, Family history is an important risk factor for this disorder. This prevalence of epilepsy would be shown to depend on the country's health care system and socioeconomic status different types of seizure are present in developing countries. There are more than 40 type seizures including Atonic seizure, Myoclonic seizure, Tonic-clonic seizure, PNES, Prolonged febrile seizure, infantile seizure and Petit mal seizure.

Objectives and aims

The objectives and aim of present study are to evaluate the exact number of patients and prevalence of epilepsy in District Chiniot.

Methodology

The study was done in the above-mentioned district by the interviews of people through the questionnaire. This survey research was completed in March 2019 to August 2019. The study areas were selected arbitrary [6]. People of bucolic and urban areas whose are suffering from this disorder, are interviewed and they are asked different questions. Patients are asked their mode of "life" for example "affected" parents or siblings, healthy sibling, birth history, weight at birth, birth complication, age at sample collection, age at symptom onset, age at diagnosis, from where the victim is diagnosing, the attack of seizures at victim either frequently or not, food habit, victim's behavior in public, victim's confidence, running drugs, seizure type (suggested by consultant), associated condition, treatment, either any test performed or not, consultants notes, what the victim think about

himself/herself. The Ethical committee of this article is University of Lahore, Sargodha, Pakistan.

Data of patients is also taken from District Headquarter (DHQ), Tehsil Headquarter (THQ), private hospitals and clinics of neurologists. Neurologists and other consultant are also interviewed through the questionnaire [7,8]. The questions are epileptic status in the district in your point of view, the number of epilepsy patients here per month, either the patient are increasing or harshness of disorder is increasing, how we can defeat this Disorder. Information of patients of epilepsy was collected from above-mentioned hospitals as well information of epileptic status compares to other today's diseases. Age is big factors so about the patients were refereed e.g. our youngest patient was by birth while the oldest patient was 65 years old. Some selected types of seizures were studied in this research are Atonic seizure, Myoclonic seizure, Tonic-clonic seizure, PNES, Prolonged febrile seizure, Infantile seizure and Petitmal seizure (As in Figure 1). Some people were suffering with the couple of seizures or more than this.

Results

Total population of district Chiniot is 1.37 million. This research survey says that a large number of males were suffering from this disorder while number of affected females was very low. Table 1 is shown the results of 19.5% females and 80.5% males were impressed by this disorder. Like most other disorders, epilepsy also famous in countryside as 22.5% patients were from urban while 77.5% patients belong to rural area. According to birth history the status of patient was 2.5% premature while 1.25% post-term patients. A single case was reported with increase in head region at birth time and in single case head region was damage during birth. If we checkout the awareness of mankind about the disorder, they are much awarded as 76.5% individuals were recognized was recorded while 23.5% were not recognized about this disorder.

Gender		Area		Birth History		Awareness	
Males	Females	Rural	Urban	Premature	Post-term	Aware	Didn't
80.5%	19.5%	77.5%	22.5%	1.25%	2.5%	76.5%	23.5%

Table 1. The %age of prevalence of epilepsy in gender, area, birth history and awareness in District Chiniot.

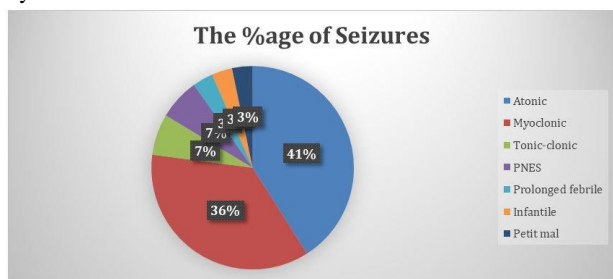


Figure 1. Show a graph between Atonic, Myoclonic, Tonic-clonic, PNES, Prolonged febrile, Infantile and Petit mal.

Further talk is their treatment; nobody was surgical treated in our survey. All patients were medically treated whose were in our under observation. Among these patients 80% persons were getting proper medical treatment while are remaining 20% were without any medical

treatment and among under treatment persons 46.25, 17.5, 36.25% people were getting treatment from neurologist, primary care physician and either family based treated, respectively. As claimed by age ratio to the disorder in occurrence 16.25% patients were in age of (0-2 years), 12.5% patients in age of (3-8 years), 46.25% patients in age of (9-18years), 22.5% patients in age of (19-45 years), 2.5% patients were in age of (46-65 years) and above age of 66 years no patients were found.

Discussion

This survey was performed to inspect the popularity and intensity of this disorder in this district. It was the first research in this district of this kind. There might be possibilities of some inaccuracy in this survey for example the number of female patients much lower. This enhance a question; this number can be lower than male patients but this a great number. So its answer is that those women of this area are very sheepish and mostly they escape to interview. In this research, all the age group was studied. It demonstrates that this disorder was found mostly in age of 9-18 years which is about 46% and patients of 46-65 years are at smaller risk of this disorder which is 2.5%. So it determined that teen age is at high risk of epilepsy.

The worldwide prevalence of epilepsy is assessed at 5 to 10 cases for every 1000 people, with ranges from 1.5 to 57 for each 1000. Lifetime commonness rates are a lot higher than the prevalence rate of dynamic epilepsy, and it is commonly concurred that up to 5% of a populace will encounter non-febrile seizures sooner or later of life. The prevalence of epilepsy in Pakistan was seen as higher contrasted with India. A higher prevalence was found in rural populaces of Pakistan and Turkey, while no statistically significant difference was found between rural and urban populations in India. This is to some surprising finding as the socio-economics of the two nations as for country and urban circulation doesn't differ at all. In both countries, more than 66% of the individuals live in rural areas. The presence of family history of epilepsy in 28.2% in children was found.

Unfortunately, Chiniot is a one of the rearward and the developing districts. It is depriving from proper medical facilities. As it is proved that by medical researches CT scan, MRI and EEG are necessary tests to confirm the symptoms. Two of these are not attainable in government hospitals. There is no intendance for indoor patients in DHQ and THQs yet. So patients have to visit other cities like Faisalabad, Sargodha and Lahore. A large percent of people knows the epilepsy but they don't try to treat themselves properly, a high percentage of People use to go neurologists for cure but don't complete the course and change the consultant, this is a big cause of rising severity. In these areas, the superstitions also play a role of rising its severity because this crap type of believes forbad them to neurological treatment. 1 to 2 percent of people from the whole population of the district are suffering from this disorder.

Conclusion

It's very obligatory to cure the epileptic people. It can be defeated by proper medication which is running about 3-4 years with missing the dose. And government should manage proper facilities in DHQ and THQs e.g. indoor services and free medicine.

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