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Research Article

**STUDY OF OCCURRENCE, PREVALENCE CHANCES AND
CAUSES OF STROKE IN INDIVIDUALS LIVING IN
DIFFERENT AREAS OF LAHORE**¹Dr. Muhammad Saad, ²Dr. Muhammad Jawad Anjum, ³Dr. Muhammad Zeeshan Zahid¹Services Hospital Lahore.**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

Objectives: The study was carried out in Sheikh Zayed hospital Lahore. The aim of the organization of this study was to learn about the occurrence of stroke in Lahore city.

Methods:

The methodology used for the study of stroke determination in Lahore was cross-sectional. 390 patients contributed in the observational study. All of them enter into this study with their own will. They filled a question paper given to them by the experimental. The question paper filled by the individuals composed of the questions based on the information about the stroke. After that the information obtained by the experiment was assessed by SPSS description 20.

Results:

10% patients out of all the 390 patients were patients of stroke. Out of these 4.81% were men and 5.18% were women. The ages of the patients were between the 55-75 years. 7.45% patients were retired from their jobs and 2.18% were active in their jobs.

Conclusions:

So after the observation it has been resulted that occurrence of stroke in Lahore was about 10%. The ages of the patients who were successfully treated are between the 55-65 and most of them were withdrawer from the jobs.

Keywords: Stroke, Cerebrovascular accident, Transient ischemic attack

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INTRODUCTION:

The biggest health related issue among the developing nations is stroke. It is mostly present in south Asian nations. If the stroke is present in an individual who is already suffering from any of the brain disorder, the condition may become malevolent. If we look internationally, stroke is the third most frequent cause of mortality among patients. It is also the main reason of disability in patients. The disability caused by stroke is long-term. [1] The ratios of stroke in individuals of average age are 10-12% greater in South Asian countries as compared to United Kingdom and US. It has been observed that in Pakistan the presence of stroke is 250 out of 1 lac persons. It is thought that in the near future this ratio is expected to increase about 30-35 thousand cases per year.

It has been estimated that the most frequent reasons of stroke prevalence in Pakistan is enhancement of tension, use of tobacco, cigarette smoke, fatness, greater cholesterol level, diabetes and cardiac disorders. In an experiment it has been found that 39% patients of stroke are the permanent smokers and they have the frequent high blood pressure level. 24% stroke patients are fatty and having higher level of cholesterol. In 19% sufferer's high blood pressure due to anxiety and tension was seen. Diabetes was reported in 15% patients of stroke. Most of the patients about 42% have the record of cardiac diseases present in the ascendants. The main reason behind these causes of stroke was the lack of information and consciousness among common masses. [2]

In the production of stroke patients Pakistan is on 6th number among the national scale. The cases of stroke patients are enhancing 1.82% per year. The biggest cause of this increased rate of strokes in Pakistan is cardiac disorders. 21.8% patients of stroke were estimated to present in Karachi according to the results of a study. The mortality rate in Pakistan due to stroke is between 7-20%. [3] This ratio has been found after the study reports of many experiments. Stroke increases the rate of mortalities in community and also pressurize the families of the patients due to its expenses of the cure. [4]

The budget of the Pakistan on health related issues is less as compared to the requirements because Pakistan is not developed country and cannot bear all the expenses. So most of the treatment based on self base that exert pressure on the society. Moreover there is no specific information that how much a single case of stroke needs money for its complete treatment. A survey was conducted in Karachi to

know about per patient expenses of the treatment of the stroke patient. According to this survey a single case of stroke may require 70, 714 rupees for complete treatment. [5] This cost is much higher than a mean income of a Pakistani individual. So to lessen the pressure on the society we must need to know about the specific features and causes of the stroke to lessen its prevalence in Pakistan. It has been estimated that the awareness about the stroke is much less in mounted as well as mounting countries like Pakistan. Moreover, less information is present about the presence of stroke in Pakistan especially in KPK. So this observational study was organized so that we can learn about the occurrence of stroke in hayatabad. [6]

MATERIAL AND METHODS:

The study was organized in Lahore. The type of study was cross sectional. The duration of the study was from September 2017 to December 2017. All the data about the prevalence of stroke in Lahore was gathered within 4 months. The persons living in the Lahore were added in the study. The patients living outside the Lahore city were excluded from the experimental study. There were no age or gender discriminates between the patients.

Patients either males or female or related to any age group were included in the study. A written approval with signs of the patients added in the study was taken. Permission was also taken from IRB for the investigation in Lahore. The information about the total numbers of individuals living in Lahore was taken from the PDA director. After knowing the total strength of persons living in Lahore size of sample was measured. Sample size was measured by using the EPI calculator. The patients of different age groups are separated and analyzed. Patients selected for study were randomly. In each phase different divisions were chosen in Lahore. After that from each sector different streets were chosen and at last different houses from each street were chosen. All the knowledge about the research study was given to each selected patient. Then a written approval was taken from each patient. Survey was organized in each and every house. A question paper was given to every selected patient. Question paper consists of information about the risks, causes, soreness and disabilities present in each patient. The patients of stroke were identified by observing their loss of sensation, loss of response produced by the central nervous system, weakness of eyesight and deafness etc.

The patients added in the study were selected randomly and written approvals were taken from

them. They don't have any monetary earnings offered by the researches. All the information was taken from the patients and then this information was assessed further by using SPSS. The SPSS used was of version 20. Chi square examination was applied for mathematical assessment. The results were found to be important if the value of p is greater than 0.05.

RESULTS:

In this experiment total 390 patients of the stroke were taken. There was no specific age limit for the

selection of patients. The range of age of the patients was between 25-100 years. Male patients were greater in number as compare to female patients. The men were about 62.2% and women were 37.8%. 10% stroke patients were identified in Lahore. The patients recovered from the stroke were women that are greater in number. About 5.11% women were survivors while the survivor rates of men were about 4.88% which is less as compared to female. This has been shown in the table.

Table 1: Gender ratio of occurrence of stroke

Gender contributors	Frequency	Ratio	Frequency of stroke	Stroke %
Men	244	62.1	20	4.88
Women	146	37.8	19	5.13
Total	390	100	39	10

Ages of the patients were between 55-75. 0.24% patients having the age limit between 25- 35. The patients having the age limit between 36-45 were 1.53%. There are fewer patients of stroke present having the age limits of 46-55, these are about 0.75%. While only 2.56% patients are present in the age limit of above 70. Following is the table showing the occurrence of stroke in various age groups.

Table 2: Age wise distribution of patients of stroke

Patients age	Frequency	Ratio	Frequency of stroke	Percentage of stroke
25-36	26	6.8	2.0	0.26
36-46	68	17.3	5.0	1.53
46-56	108	28.0	4.0	0.75
56-66	122	30.9	13.0	3.60
66-76	48	12.2	9.0	2.55
76-86	11	3.0	3.0	0.52
86-96	5	1.4	1.0	0.50
96-106	2	.4	3.0	.26
Total	390	100.0	39.0	10.0

60% sufferers of stroke were doing the job out of total 360 sufferers. 39.75% sufferers were retreated from their work. There were some patients who have the value of p less than 0.001. It means that there is average importance present between the job holding and individuals retreated from the jobs. Table 3 shows the distribution of individuals on the basis of jobs.

Table 3: Occurrence of stroke on the basis of jobs and retirement

Occupation of patients added in the study	Frequency	Frequency of stroke	Percentage of stroke
Individuals having job	235	11.0	2.55
Individuals retreated from job	154	28.0	7.44
Total	390	39.0	10

DISCUSSION:

Stroke is present worldwide. The patients suffering from stroke along with the presence of brain disorder face many complexities. Stroke is the 3rd most death producing disease in the world. It also causes permanent disability in the individuals. It is the 1st reason of permanent disability among individuals in

developed and developing nations. It is also the 3rd most frequent cause of mortality in these nations. [7]

The following experiment was conducted to know about the occurrence of stroke in the patients of Lahore. The experiment was of cross-sectional kind. In Lahore the stroke is 10% present. Another

experiment was organized by Wassay and associated in Karachi. This study was carried out in the municipal regions of Karachi. It was reported that persons of age 35 have 21% chances of stroke in their life. [8] Almost same findings were reported by Ahmad and associated. In our study we found less occurrence of stroke as compared to other cities. The reason behind this was that our studies was limited and less amount of individuals were added in our study, that's why our results are restricted to lesser population. While other studies were organized on larger scale. It has been seen in the following observations that most of the patients successfully treated from the stroke were between the ages of 55-65. Same findings were reported by Khealani and associated. There was no difference found on the basis of males and females. The rate of stroke was similar in males and females. On the other hand, literature review stated that the stroke is present in higher amounts in women as compared to men. [9]

The rate of stroke was 2.55% in the individuals active in their works while stroke rate was found to be 7.44% in individuals retreated from jobs. Another experiment conducted by Galimanis and associated showed the same findings. So it has been concluded that the activities in life reduces the rate of presence of stroke. It was stated that less physical workout enhances the chances of stroke as reported by Bousser and associated by the help of an experimental study. [10]

CONCLUSION:

10% stroke rate is present in Lahore city. The patients survived after the stroke having the age between 55 to 65. The stroke rate is higher in individuals who have less active lifestyle.

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