EMPIRICAL STUDY OF PREVALENCE OF STROKE IN RURAL SINDH

Shah Pisand Chandio, Ghulam Hyder Talpur and Raja Muhammad Ilyas

Department of Statistics, University of Sindh, Jamshoro, Sindh, Pakistan.

ARTICLE INFORMATION

ABSTRACT

To assess risk factors, causes, problems in treatment and increase in stroke patients an observational study was conducted among the patients of stroke of taluka Khairpur Nathan Shah and Mehar, district Dadu. Data of 6 years annually reported cases of stroke patients was collected from Chandka Medical College Hospital Larkana. Data was analyzed to find out the growth rate of stroke patients. 80% Patients presented with Ischemic stroke and 20% presented with haemorrhagic Stroke. A large number of respondents were unaware about risk factors of stroke, such that hypertension is main cause of stroke. More than 50% patients rely only upon homeopathic or herbal medicine. Extreme number of respondents refused the statement that treatment facilities are available at nearest taluka or district hospitals. Peoples have need of treatment facilities and awareness about risk factors and complications of stroke. By exponential regression method it was analyzed that number of stroke patients is increased by 100% in year from 2010 to 2015.

1. INTRODUCTION

Stroke is a medical emergency that required rapid diagnosis and treatment [1,2,3,4]. Remember that "TIME IS BRAIN" [4]. The hall mark of stroke is the abrupt interruption of cerebral blood flow to a specific brain region resulting neurologic deficits [4]. Fluctuation of functional deficits after stroke onset or a brief deficit known as treatment ischemic (TIA) suggests tissue at risk for infarction that may be rescued by re-establishing perfusion [4]. More than 15 million people suffer from stroke worldwide [5,6,7].There are about one million of new cases of stroke every year within European union and 750,000 in United States of America [7,8]. Stroke is expected fourth leading cases of diseases burden worldwide by year 2020 [7]. During last three decades between 1970 and 2008 stroke rate across in the developed by 42% while it rose 100% over the same period countries in developing countries like Pakistan [7].Major risk factors for ischemic stroke include hypertension, TIA, prior stroke, diabetes, cigarette smoking, alcohol consumption, oral contraceptive use, obesity and age [4]. Haemorrhagic stroke occurs in about 20% of all cases. Now contrast head CT scan should be obtained acutely to rapidly differentiate from Ischemic strokes [4]. It cans identity acute

haemorrhages in most cases [4]. Head CT Scan is diagnostic of SAH in 90% of SAH patients in the first 24 hours [4]. MRI scan is the most sensitive imaging study for stroke diagnosis [4]. Diffusion weighted image detect stroke the earliest [4]. If the diagnosis of stroke is clear from chemical exam, MRI is not always necessary [4]. In Pakistan 400,000 new cases occurs every year more than 70% of rural population is unaware that they have hypertension, and do not come to medical facilitates, get the appropriate risk factors of stroke.

STUDY OBJECTIVES

Objectives of this study are:
- To find out the causes of stroke.
- To analyze problems during treatment in rural areas.
- To analyze the increasing rate of stroke patients.

2. MATERIAL AND METHODS

This cross-sectional and descriptive study was conducted among the patients of Stroke of Khairpur Nathan Shah and Mehar Taluka of district Dadu from September to November 2015. Fifty Patients of stroke were included in this study, out of these

Corresponding Author: shahpasand77@gmail.com

patients 30 were male and 20 female patients, age range of the patients were between 40-60 years male female ratio 3:2. By self constructed questionnaire data was collected from the patients or the relatives of the patients about risk factors, causes and treatment problems of stroke in the nearest Taluka Hospital. Respondents were enquired if they have heard about stroke? Risk factors of stroke, treatment of stroke, causes of stroke and respondents were further enquired about if they were getting medical treatment or herbal treatment and were they satisfy? Collected data was analyzed by SPSS V-22 frequency distribution table and bar graph figures were constructed to interpret results. Data of annual reported cases of stroke patients for year 2010 to 2015 from Chandka Medical College Hospital Larkana was also collected and analyzed by SPSS V-22, exponential regression method was applied and graph of exponential regression was constructed to draw conclusions about the growth in stroke patients. By the analysis of data it was observed that respondents had lack of knowledge about risk factors and causes of stroke and results also showed that patients had complaint against unavailability of medical treatment of stroke at Taluka Level hospitals of rural areas, due to unavailability of medicine large number of Patients were relying upon herbal medicine rather than medical treatment. Due to unawareness about risk factors complications cannot be prevented.
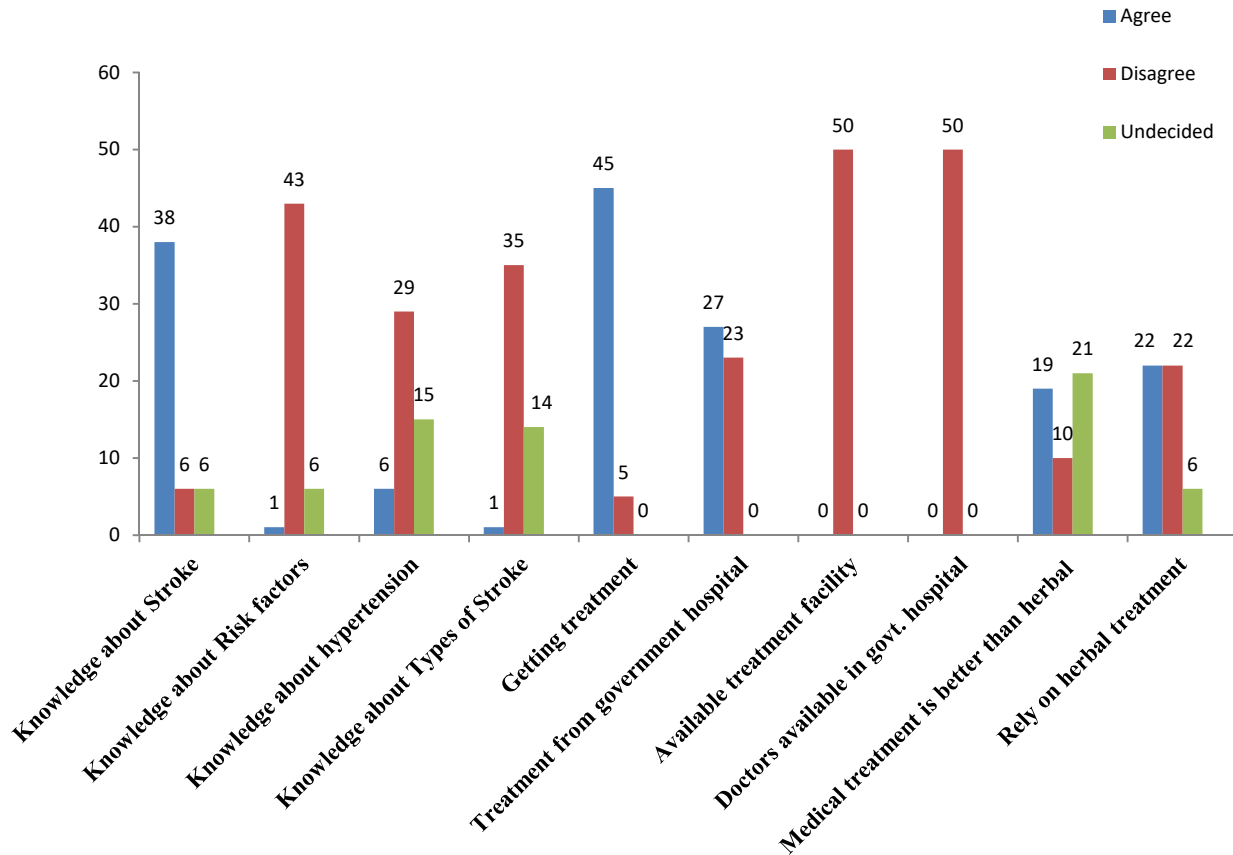

Figure 1- Risk Factors and Problems in Treatment of Stroke in Rural Sindh. (Source: Survey Data, 2016).
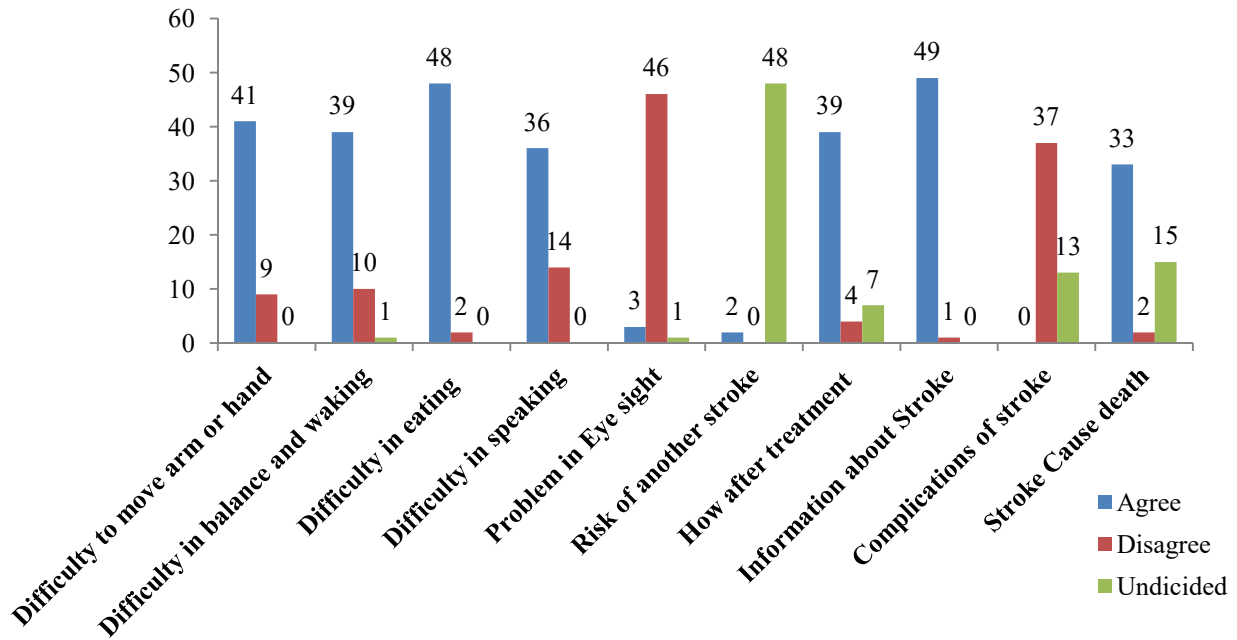
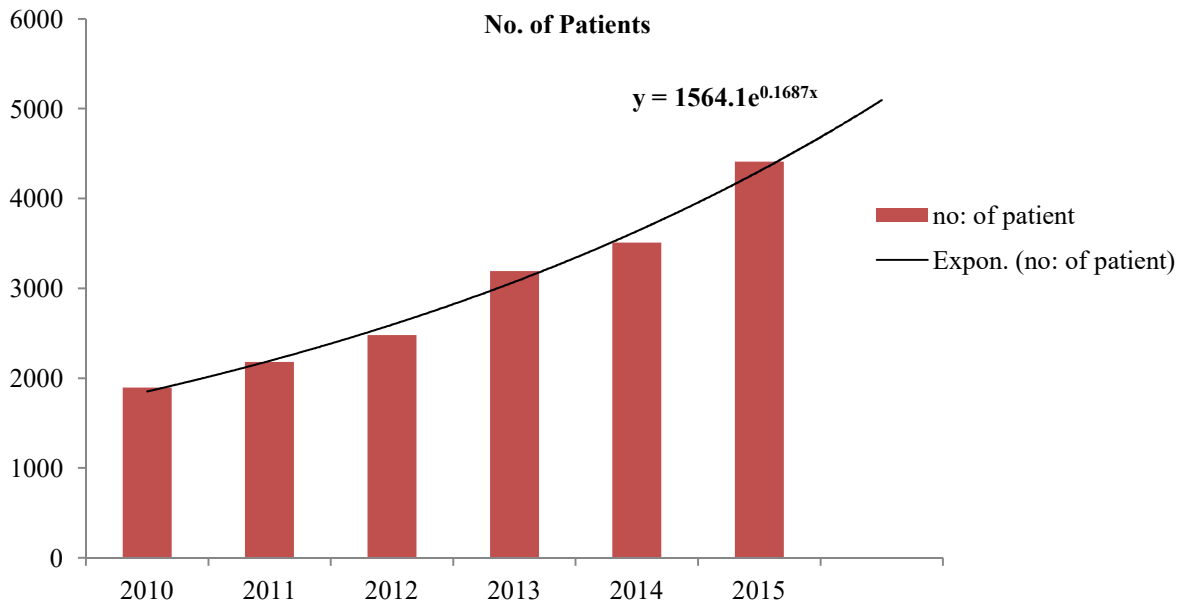**Figure 2-** Causes and Difficulties in Stroke Disease (Source: Survey data, 2016).

Figure 3- Reported Stroke Cases at CMU Hospital Larkana from 2010 to 2015. (Source: Survey data, 2016).

3. RESULTS

A total of 50 patients of Stroke were included in this study, age of patients was 40 to 60 years, and patient's ratio was 3:2 (30 male 20 female). Majority of the patients 76% (n=38) had heard about stroke but 86% (n=43) were unaware about risk factors of stroke 90% (n=45) agreed that they were getting treatment of stroke but half of the patients agreed that they were getting herbal treatment. 100% (n=50) disagreed about the availability of medicine of stroke and concerned doctors at their nearest taluka level hospitals. 82% (n=41) patients agreed did they find it difficult to move their armor hand, 78% (n=39) had problem in swallowing and eating, 72% (n=36) had problem in speaking and understanding, 96% (n=48) were unaware about the risk of other stroke. Extreme value 98% (n=49) had need about basic information about stroke, 74% (n=37) disagreed about the statement that how can complications of stroke be prevented, 66% (n=33) agreed stroke cause death. Both educated and uneducated patients were mostly depending upon homeopathic or herbal medicine and thought that herbal medicine is better treatment of stroke. Results regarding data collected from Chandka Medical College Hospital shows that rate of stroke patients is increasing day by day which is double in 2015 as compared to 2010. Patients had need of basic knowledge in most of the parameters except in prevalence of Stroke.

4. DISCUSSION

In this study incidence of stroke deadly and dreadful disease appears to be increasing in most part of the country and particularly in Sindh. The risk factors of this disease have increased by 100% in Sindh due to unawareness about this disease and hypertension is main cause of stroke. 58% (n=29) patients were unknown that hypertension is main cause. Majority of patients get herbal treatment, due to unavailability of stroke medicine at Taluka or district level hospital. Poor patients are suffering and they only depend on herbal medicine, most of the patients had problem in their arm and hand, extreme number of patients 96% had problem in speaking, understanding, swallowing and eating. 98% patients were unaware how to save themselves from the complications of stroke. Keeping these figures it is necessary to manage an awareness campaign for these patients. High blood pressure is main cause of stroke because of this disease many people become heart failure also, more than 70% patients of stroke are hypertensive. For long term basis, basic facilities like stroke medicine, physiotherapy and availability of concerned doctors at taluka level hospital is very important for the patients who are living in rural areas do not afford expanses of private doctors and hospitals of big cities. Awareness programs must show on television and other sources of social and print media.

5. CONCLUSION

Disease of stroke is increasing frequently in Sindh Pakistan according. To analysis of last 5 years more than 100% cases are increased reported at Chandka Medical College Hospital as compared to 2010-2015, most of the patients had not knowledge about the risk factors of stroke as hypertension is main cause of stroke. An extreme number of patients 100% (n=50) emphasized that treatment facility must be provided at that taluka level hospital for betterment of stroke patients in rural areas. Having not treatment facility in rural areas most of the patients rely upon homeopathic or herbal medicine, 98% (n-49) agreed that information about stroke is needed and if the risk factors are detected and treated earlier then prevalence of stroke can be reduced. Most of the stroke patients cannot afford expanse of medicine from private hospitals of cities and they suffer and ultimately go to death.

6. CONFLICT OF INTEREST

All the authors have declared that there is no conflict of interest regarding the publication of this article.

RECOMMENDATIONS

- It is necessary to provide medical facilities of stroke at taluka level Hospitals in Rural areas.
- It is necessary to arrange programs about prevent of risk factors of stroke in Rural Sindh.
- Prevalence of stroke can be reduced by preventing risk factors of stroke.

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