ORIGINAL RESEARCH PAPER
VOLUME-6 | ISSUE-7 | JULY-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

RISK AWARENESS AND KNOWLEDGE OF STROKE AMONG HYPERTENSIVE PATIENTS

Surgery

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ABSTRACT

Introduction: Stroke is the second most common cause of death and major cause of disability worldwide.
Aim: The aim of our study is to determine the knowledge of hypertensive patients about stroke risk factors and warning signs.
Methods: This observational study was conducted in a tertiary care hospital. Patients were interviewed face-to-face about stroke risk factors intended to acute stroke.
Results: Hypertension (76%) was the most commonly answered risk factor followed by diabetes (64%), alcohol use (36%), history of stroke (24%), Heart diseases, Obesity and family history of stroke was answered in least (16% and 12%).
Conclusion: It is recommended to develop health education programmes to improve the awareness of stroke at primary and secondary health care levels.

KEYWORDS:

Stroke, hypertension, Risk factors, knowledge

INTRODUCTION

Stroke is the most common, life threatening disease and is the major cause of morbidity and mortality worldwide especially in South Asian subcontinent.[1,2] According to the survey conducted by the Indian council of research in 2006, it was found that the prevalence of stroke varies from 40 to 270 in 100,000 populations in different regions in India and most of the population effected are <40 years of age.[3] According World Health Organization, stroke is "a rapidly developed clinical sign of focal disturbance of cerebral function of presumed vascular origin and of more than 24 h".[4] The risk factors for stroke are may be nonmodifiable (race, age, sex, low birth weight), modifiable (hypertension, dyslipidemia, diabetes, tobacco smoking, atrial fibrillation, cardiac disorder, sickle cell disease, diet and body mass index) and potential risk factors (metabolic syndrome, alcohol, drug abuse, sleep apnea, migraines, oral contraceptive use) and other environmental factors include lower education, poor economic status, tobacco, infections, body mass index (obesity, body mass index >30 kg/m^2) exercise and diet etc.[5] The objective of the study is to identify the major risk factors and assess the awareness among the stroke survivors. The population in India is now surviving beyond the peak years (age 55-65 years) for the risk of stroke.[6] With rising trends of hypertension, diabetes, smoking and stress in daily life among Indian population India , is likely to face enormous socioeconomic burden to meet the cost of rehabilitation of stroke victims. Awareness and knowledge in general population, regarding risk factors and warning symptoms of stroke are essential for the prevention and initiation of immediate effective treatment of stroke. Besides that awareness of risk factors may also improve adherence to medical advice regarding lifestyle modifications. Systematic reviews have shown that one time advice from healthcare workers during routine patient interactions can have an appreciable impact on patient's behavior[7-9]. However, persons at risk often tend to misunderstand their own risk, underestimating their probability for stroke and assuming that adverse events will not happen to them[10].Sama et al.reported about one fourth of patients in their study ,who recalled being informed of their increased risk by physician did not perceive themselves to be at risk for stroke.[11]

AIM

The aim of our study is to determine the knowledge of hypertensive patients about stroke risk factors.

MATERIALS AND METHODS

This observational study was conducted in a tertiary care hospital. Patients were randomly selected while waiting for medical consultation in the waiting room. Verbal consent to participate in the study was obtained. Patients were interviewed face-to-face about stroke risk factors intended to acute stroke. Each interviewer conducted a standardized, structured, one-to-one interview, according to a questionnaire designed to guide interview, avoiding bias. Patients were firstly elucidated about the aim of our study and confronted the several alternative designations of stroke. The interviewer intervened only if asked to clarify any question, though correct answers were not suggested.

RESULTS

Table1 Distribution of Demographic variables

Demographic Variables	Number of Participants	Percentage
Age group		
<40	12	24%
41 to 60	24	48%
> 60	14	28%
Gender		
Male	36	72%
Female	14	28%
Education		
No Proper education	8	16%
School	22	44%
College	20	40%

Table 1 Depicts that half of study subjects were upto age of 41-60 years (48%) while between age group of >60 years were 28% of study subjects. Mean age was 48.79 ± 12.86 years and range was 32-76 years. 72% were males and 28% were females. Nearly half (40%) of study subjects were having their college degree, 22% were completed their school and 16% were had no proper education.

Table 2 Presence of risk factors of stroke among the subjects

Risk factors of stroke present	Number of Participants	Percentage
Diabetes	26	52%
Tobacco users	8	16%
History of Stroke	4	8%
Heart diseases	12	24%
Family history of Stroke	2	4%
Alcohol use	4	8%
History of Hypercholesterolemia	18	36%
Obesity	6	12%

Table 2 depicts the analysis of the sample distribution pertaining to the high risk group. It shows that majority (52%) of study subjects had diabetes, 36 % had Hypercholesterolemia, 24% were had heart diseases, 16% and 8% were tobacco and alcohol users, 2% had family history of Stroke.

Table 3 Knowledge of risk factors of stroke in study subjects

Risk factors	Number of Participants	Percentage
Hypertension	38	76%
Diabetes	32	64%
Tobacco users	16	32%
History of Stroke	12	24%
Heart diseases	8	16%
Family history of Stroke	6	12%
Alcohol use	16	32%
History of Hypercholesterolemia	12	24%
Obesity	8	16%

Table 3 Depicts that hypertension (76%) was the most commonly answered risk factor followed by diabetes (64%), alcohol use (36%), history of stroke (24%), Heart diseases, Obesity and family history of stroke was answered in least (16% and 12%).

DISCUSSION

Stroke continues to be a leading cause of death and long term disability in adults worldwide. In India and other developing countries, an alarming increase in the incidence of stroke has been observed owing to an increase in life span with rising trends of hypertension, diabetes, smoking and stress in daily life[12]. Previous studies have shown a poor knowledge of stroke among patients with established risk factors for stroke and in community at large[12-15]. Most of the patients and caregivers did not recognize the onset of stroke and their knowledge of risk factors was poor[16]. Awareness of risk factors and warning symptoms of stroke in general population is essential for prevention and initiation of prompt treatment. The major findings of the present study revealed that majority of study subjects had average knowledge of warning symptoms of stroke (>95%) and less than 50% were well informed of risk factors of stroke. These findings from present study were not similar to the findings from Pandian JD et al. (2005)[17] who, in a hospital based survey among relatives of outpatients found better knowledge about risk factors and warning symptoms of stroke. These findings from the present study may be biased because the survey was conducted among the subjects who visited hospital, as they come to hospital they gain some knowledge about disease entity and hence were well informed after. Hypertension (76%) is recognized as the most common risk factor in this study This finding is similar to the observation made in other studies from India(45.1%)[17], Michigan (32.3%)[19], Australia (31.8%)[14]. On the contrary, in this study the proportion of subject, who mentioned other established risk factors such as diabetes mellitus ,heart disease, increased cholesterol were higher as compared to the other community based studies[14,17]. There is a need to develop health education modules, programs to improve the awareness of stroke both at primary and secondary health care levels. It is recommended that a similar study on larger sample can be replicated so that the findings can be generalized and future studies are needed which focus on community surveys including rural and urban population especially focusing on indigenous treatment and myths about stroke and its potential complications.

CONCLUSION

Public health campaigns to encourage primary prevention of hypertension should be the first target by stopping smoking, reducing salt intake, moderate physical exercise, healthy lifestyles, etc. Those people with hypertension should also be targeted. Every effort should not only make to encourage these patients to follow healthy life styles but also perhaps to persuade them to own their BP and its control, taking medication as necessary.

REFERENCES

1. Choi-Kwon S, Kim JS. Lifestyle factors and risk of stroke in Seoul, South Korea. J Stroke Cerebrovasc Dis. 1998;7:414–20.
2. Das SK. WHO steps stroke surveillance system: Feasibility in India. Indian J Med Res.2009;130:359–60.
3. New Delhi: 2006. [Last cited on 2012 Nov 10]. Workshop Report on Stroke Surveillance in India. Held on 13-15, November. Available from: http://www.203.90.70.117/searoftp/WROIND/whoindia/linkfiles/NMH_Resources_cvd_MGMT__icmrSTROKE_SURVEILLANCE.pdf.
4. The World Health Organization MONICA Project (monitoring trends and determinants in cardiovascular disease): A major international collaboration. WHO MONICA Project Principal Investigators. J Clin Epidemiol. 1988;41:105–14.
5. Fagan SC, David CH. Stroke. In: Dipiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, editors. Pharmacotherapy – A Pathophysiologic Approach. 7th ed. New York: McGraw-Hill Companies; 2008. pp. 406–15.
6. Dalal PM. Stroke in India: issues in primary and secondary prevention. Neurol India 2002;50:S2-S7.
7. The National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group:Tissue plasminogen activator for acute ischemie stroke. N EngI J Med 1995;333:1581- 1588.
8. Anshenden R, Silagy C, Weller D. A systematic review of the effectiveness of promoting lifestyle change in general practice. Fom Pratt 1997;14:160-76.
9. Rice VH, Stead LF. Nursing interventions for smoking cessation.cochrane systematic review 2001;CD001188.
10. Janz NK, Becker MH.The health belief model a decade later.Health Educ Q 1984;11:1-47.
11. Sama GP, Cohen SJ, Goldstein LB,Bonito AJ,Ducan PW,Enarson C et al. Knowledge of risk among patients at increased risk of stroke. Stroke1997;28:916-921.
12. Kaul S. Issue on stroke- Indian scenario.Neurol India 2002;50(Suppl.I):91.
13. Tuchfarber A, Miller R et al.Public perception of stroke warning signs and knowledge of potential risk factors. JAMA 1998;279:1288-1292.
14. Yoon S S, Heller RF, Levi C, Wiggers J, Fitzgerald PE. Knowledge of stroke risk factors, warning symptoms and treatment among an Australian urban population. Stroke 2001;32:1926-30.
15. Das K, Mondal GP, Dutta AK, Mukherjee B, Mukherjee BB. Awareness of warning symptoms and risk factors of stroke in the general population and in survivors of stroke. Journal of Clinical Neuroscience 2007;14:12-16.
16. Collins DR,O'Neil D, McCormack PME.Patientand career knowledge of symptoms and risk factors in stroke. Age and ageing 1999;28(suppl I):53.
17. Pandian JD, Jaison A, Deepak SS, Kaira G, Shamsher S, Lincoln DJ et al.Public Awareness of Warning Symptoms, Risk Factors, and Treatment of Stroke in Northwest India. Stroke 2005;36:644-648.
18. Kothari R, Sauerbeck L, Jauch E, Broderick J, Brott T, Khoury J et al.Patients' awareness of stroke signs, symptoms, and risk factors. Stroke 1997 Oct;28(10):1871-5.
19. Reeves MJ, Hogan JG, Rafferty AP. Knowledge of stroke risk factors and warning signs among Michigan adults. Neurology 2002 Nov 26;59(10):1547-52.