

ORIGINAL ARTICLE

Knowledge, Attitude and Perception of Female Hypertensive Patients Towards Stroke

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Abstract:

Hypertension is a very common chronic disease world wide, and stroke is one of it's complications if not treated properly. In Bangladesh, women have traditionally tended to overlook their own disease states when a male member of the family is already afflicted. The cross sectional observational study was carried out to explore the knowledge, attitude and perception hypertensive females have towards stroke between July 2012 and December 2012 at HFRCMCH. Admitted and outdoor female hypertensive patients were randomly selected; with their consent they were asked to respond to a prestructured questionnaire. We found that 52% of our cohort identified the brain as being the organ involved in stroke; however 35% still believed it to be a disease of the heart. Around 80% of the patients did understand the complications and impact stroke would have on their daily lives; however, there were some conceptual misunderstandings with regards to the risk factors and warning signs. Hypertensive women need to have a clearer concept regarding their own disease, understand the warning signs and the risk factor of stroke and in turn create a greater awareness of the link between hypertension and stroke.

Introduction:

According to the WHO, nearly six million people die of stroke worldwide annually. The World Stroke Organisation has documented stroke to be the second leading cause of death for people above 60 years and the fifth leading cause of death for people aged between 15 to 59 years. In Bangladesh, stroke has been listed as the third cause of death after coronary artery disease and infections. Mortality due to stroke in Bangladesh has been ranked as number 84 by the World Health Organisation.¹

The American Heart Association in their 2009

statistics analysis of the United States population have noted that although males have a higher risk of stroke than women in most age groups, women tend to have significantly more strokes than men after the age of 85 years. This is important to note as the life expectancy of females is now increasing.^{2,3}

Globally cardiovascular diseases i.e. stroke and heart disease are the biggest killer of women causing around 8.6 million deaths annually, which is a third of women worldwide. Out of this, 3 million women die of stroke each year (according to the World Heart Federation).

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Recently, a midlife stroke surge in females in the ages 45 to 54 years has been found, which is an age group traditionally found to be at a low risk⁴. In developing countries there has been a shift from a predominance of communicable diseases to chronic non communicable diseases, with hypertension being a major one. Lack of control of hypertension seems to be a crucial problem in developing countries. Often patients do not understand the gravity of taking regular medication and do so only when they have symptoms which they attribute to raised blood pressure like chest pain, dizziness or when they find that their blood pressure is high. Lack of knowledge and awareness appears to be an important barrier to the control of blood pressure.

Despite displaying warning symptoms of stroke, patients do not present to the emergency department on time.⁵⁻⁸ Although there are many factors that contribute to the delay in patients presenting to the emergency department with acute stroke; lack of knowledge of symptoms and awareness is a major cause.⁹

This study was carried out with the intention of finding out how aware hypertensive women are regarding their diagnosis of hypertension and their subsequent risk and knowledge of stroke.

Materials and method:

Research design: This was a cross sectional observational study that took place from July 2012 to December 2012. Diagnosed female adult (18 years and above) hypertensive patients admitted to the medicine department as well as in the first author's outdoor practice at Holy Family Red Crescent Medical College Hospital were selected on a random basis. In total 202 patients were enrolled in the study; questions were asked from a prestructured questionnaire. Warning signs were a mixture of medically documented signs as well as signs anecdotally mentioned by patients which may actually have no relation with stroke. Similarly risk factors were taken from well documented risk factors of stroke along with a few culturally mistaken associations with stroke and a few

red herrings. The patients were informed regarding the observational study and written or verbal consent were taken.

Results:

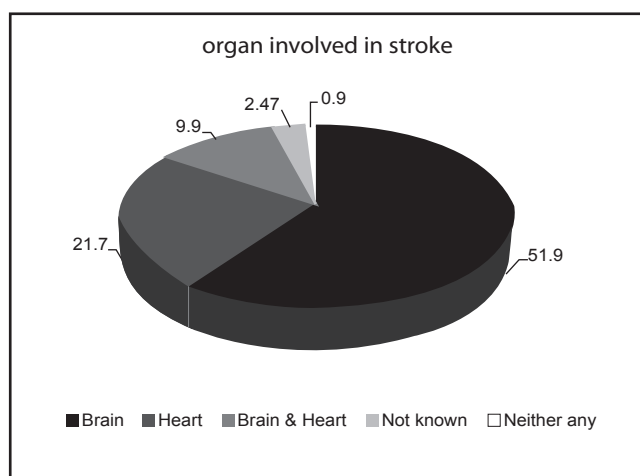
Out of 202 patients, 18.8% had a maternal history of stroke while 21.7% mentioned that they had a paternal history of stroke. 9.4% claimed that both parents had a stroke history; 25.7% were not sure and 24.2% denied any history of parental stroke. A conceptual analysis revealed that while 51.9% correctly identified the brain as being the target organ of stroke, 34.6% believed the heart to be the primary organ. 9.9% believed both to be affected, 2.47% didn't know and 0.9% didn't think either of the organs had any role. Table-I depicts the percentage of warning signs the patients identified with stroke, the highest being attributed to weakness and the least to back pain. A few of the symptoms are related to the concept of stroke being associated with the heart.

Table-I: Warning signs of stroke identified by respondents

Warning Sign	Percentage	Warning Sign	Percentage
Weakness	81.6	Chest Pain	61.3
Confusion	71.7	Shortness of Breath	57.4
Loss of Balance	71.2	Headache	53.9
Sweating	69.8	Vision	51.4
Dizziness	66.3	Convulsion	47
Speech	66	Back pain	23.7

Table-II: Knowledge about risk factors of stroke

Risk Factors	Percentage	Risk Factors	Percentage
Anxiety	80.6	Extra Table Salt	64.8
Increased Age	78.7	Fast Food	62.8
CHD	78.7	Lack of Exercise	54.4
Dyslipidaemia	75.2	Fear	53.9
Hypertension	74.7	Hereditary	53.4
Prior Stroke	70.7	Climatic Changes	30.6
Obesity	70.2	Spirits/Jins	21.7
Smoking	66.8	Younger Age	20.7
Diabetes Mellitus	64.8	Thin Build	12.3



While in this small cohort sample around 52% of the population identified the brain as the target organ, interestingly, a similar KAP study amongst the urban population of Australia showed that around 73% of the sample population identified the brain as the organ involved.¹⁰

Table-III: Reactions to stroke:

Reactions to stroke	Percentage
Take to hospital	81.6
Take indigenous drugs	15.3
Don't know	2.9

Table-IV: Knowledge regarding consequences of stroke

Consequence	Percentage
Paralysis	70.2
Increased Family Responsibility	80.1
Depression	64.3
Disability	79.7
Reduced Income	67.8
Death	91.5

Discussion:

The target sample of this group of patients was taken from HFRMCH, and was focused upon hypertensive females. The selection of females and being

hypertensive was made as the first author found in her practice that females tend to overlook the fact that they have a major risk factor of stroke. In addition to that, given the patriarchal nature of society, women tend to put their own morbidities in the back seat when a male member of her family has a morbid condition, similar or not. Proper education and awareness programs via social and print media can help increase this awareness. There was a time when survival after the diagnosis of breast cancer was unthinkable, but now due to the increased world wide awareness programs instituted, early detection by women themselves has brought about a change in survivability. Although six times more women die from stroke and heart diseases, women still think that breast cancer is the biggest health problem they face.¹¹ Hence this community questionnaire was constructed to look into whether hypertensive females could identify themselves being at risk of stroke. With women having longer life spans, a lower age has been identified in women to be a risk factor for stroke. This age was traditionally thought to be a safety net for women. In a country where it falls upon the womenfolk to oversee the day to day activities and general running of the household, the number of disability adjusted life years lost due to stroke has been reported to be high (485 per 10000 people).¹ Our study showed that around 80% of the women did realize what the impact of stroke would be on their daily activities, however, around 37% of these patients would not take their antihypertensive medication on a regular basis, with 48% resorting to taking them when 'feeling bad' (from a separate study on the same patients).

It has been reported that women suffering from stroke have been found to have a higher level of functional disability and depression following stroke.¹²⁻¹⁵ While in this small cohort sample around 52% of the population identified the brain as the target organ, interestingly,

a similar KAP study amongst the urban population of Australia showed that around 73% of the sample population identified the brain as the organ involved.¹⁰ Acknowledging the brain, and not the heart, as the target organ of stroke is of paramount importance. In our study we found that although the majority, nearly 52%, of women identified the brain as being the organ in question, about 35 % still thought that stroke affected the heart. This differentiation is crucial for the patients and their relatives/attendants as they can then decide correctly which medical institute the patient is to be taken to. In Bangladesh's context, there are national institutes for both heart and brain diseases; they are affordable at a relatively cost effective rate for the common man. Hence appropriate knowledge of stroke and heart attack is imperative for early diagnosis and appropriate logistic support of the patient. Another important consideration is the fact that now since emergency treatment of cerebral infarction is available in Bangladesh with quite a few neurologists practicing mechanical thrombectomy for clot removal and coiling for subarachnoid haemorrhage, it is crucial for patients to identify the warning signs of stroke and be taken to the appropriate center. With females being more aware of their own risk of being vulnerable to stroke, they have a better chance of educating other females too.

In conclusion, this KAP study was carried out on a small cohort of hypertensive females to identify their basic understanding of stroke as well as their own risk towards the disease. A larger scale of patients would probably reveal a similar study and this in turn could be used to raise social awareness amongst the public regarding stroke.

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