

Knowledge about the common risk factors among patients presenting with acute stroke

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Abstract

Research on the many risk factors for stroke is essential since the disease becomes an increasingly big problem for healthcare systems. Most public education efforts center on the signs and risk factors of stroke, but even those who are good at recognizing the signs of a stroke may not realize that they need to get to the hospital almost away. Addressing prominent risk factors for persons arriving with a stroke that is sudden was the goal of this investigation. In this prospective research, 45 patients admitted to the Neurology & stroke unit at Bolan Medical Collage Hospital (BMCH), Quetta Department of Neurology, were considered. The male-to-female ratio was 4:1 out of 40 patients, with 25(56%) being male and 20(44%) being female. Patients presenting with acute stroke had little understanding of common risk factors, according to the research. Factors that increased the likelihood of cardiovascular illness (16%), hypertension (25%), a history of diabetes (18%), alcohol use (19%), cigarette smoking (22%), and When it comes to cerebral bleeding in particular, hypertension is the most common modifiable that for stroke. Tobacco use, high cholesterol, and diabetes mellitus are other major contributors. Through education, regular medication use, and behavioral changes, most of the major risk factors in stroke may be avoided. To reduce the stroke incidence, sickness, and mortality rate in Pakistan, the national stroke preventive program should establish guidelines, launch public awareness initiatives, and collect data.

Keywords: Acute stroke, risk factors, hypertension, diabetes

Introduction

Strokes are still a big issue on a worldwide scale, and they're only going to get more in the future due to the aging population. Everyone from patients and their families to the healthcare system and the society bears the heavy financial burden of strokes. Among adults, they are a major contributor to death, dependence, and disability. In 2020, Raul et al.

About 85% of all occurrences of stroke are ischemic strokes, and stroke constitutes an potentially lethal condition. Strokes kill almost 6 million individuals annually throughout the globe. Having another one is quite probable for those who manage to survive. The study conducted by Wang et. al in 2018 It is possible to get a recurrence rate of 39.2% within ten years. The patient's disability may intensify or perhaps lead to death if the stroke occurs again. Stroke survivors are more likely to avoid future complications if they adhere to a balanced diet and take their medicine as directed. Stroke is one of the leading global causes of adult disability. More than 250,000 people die every year from it, making it the third leading cause of death in Thailand. The risk of death or severe disability increases by 25% after 5 years if a stroke returns. Disabilities are one consequence of strokes, but they are far from the only one. As stated by Saengsuwan et al. (2017)

Worldwide, and especially in South Asia, stroke is a leading cause of disability and death due to its high prevalence and lethal potential (Shravani, et. al; 2015). Stroke occurs at a rate of 40 to 270 per 100,000 in various regions of India, with most victims being less than 40 years old, according to a 2006 study by th Indian Council of Research."A rapidly developed therapeutic sign of focal loss of cerebral activity with presumed vascular origin that persists for more than 24 hours," is how the World Health Assembly defines a stroke.

A stroke is a tragic occurrence that changes a person's life in a profound way, as described by Lloyd-Jones et al. (2009). The loved ones and carers of stroke sufferers are also affected. The number of fatalities caused by stroke has been decreasing. The introduction during intravenous tissue-type plasminogen stimulate activator as an exclusive therapy for certain patients with strokes that are acute in nature within the window of opportunity for therapy and the promise of alternative intervention therapies have not diminished the importance of effective prevention in reducing the burden of stroke (Adams et al. 2007).

Acute stroke, often called a cerebrovascular accident, is not an accident; this is something that must be kept in mind. Instead of calling it a "heart attack," the more

accurate term is a "brain attack." In contrast to heart disease, stroke may manifest in a wide variety of ways. (Forshing Lui and Prasanna Tadi, 2023) Ischemic and hemorrhagic strokes are the most common types. Additional types of hemorrhagic strokes include nontraumatic (spontaneous) bleeding from the brain (ICH) and nontraumatic subarachnoid hemorrhage (SAH). (Spontaneous aneurysmal)

When a blood artery becomes blocked, the brain receives less blood, a condition known as an ischemic stroke. When a blood artery bursts, blood seeps into the brain cavity, resulting in a hemorrhagic stroke. (Forshing Lui and Prasanna Tadi, 2023)

Hemorrhagic stroke occurs when a blood artery bursts, resulting in brain hemorrhage. Subarachnoid hemorrhages (SAH) and intravenous hemorrhage (ICH) are the two types of stroke with hemorrhage that may be further differentiated. The subarachnoid space is receiving SAH leaks, whereas the brain parenchyma is receiving ICH leaks. (The researchers Unnithan et al., 2023) Hemorrhagic stroke is associated with high mortality and substantial morbidity. Poor outcomes are associated with the development of hemorrhagic stroke. It is critical to recognize and treat the condition early because, as is normal, bleeding rapidly worsens, leading to a sudden loss of consciousness and neurological impairment.

Stroke is defined in detail by the American Cardiovascular Association and the American Stroke Association. To put it simply, a stroke is defined as an abrupt onset of focal neurological impairment that lasts more than 24 hours.

One of the leading causes of disability and the second leading cause of mortality worldwide is stroke. The high costs of stroke-related prehospital, hospital, and posthospital treatment may be a significant financial burden.

In order for stroke survivors to follow preventive treatment and engage in healthy habits, which are believed to reduce or delay the risk of a recurrence of stroke and boost prognosis, it is commonly acknowledged that having a good grasp of stroke is essential. However, the present degree of understanding of this information by stroke survivors is insufficient. The study conducted by Wang et. al in 2018 More than 50% of stroke survivors in previous research had no knowledge of the likelihood of a recurrence because they could not identify even a single risk factor or warnings sign. Nearly one-third of those people didn't know what to do if symptoms arose. Because they were no longer needed to take their oral prescription, over 30% of patients stopped taking their secondary preventative treatment after being discharged. (The 2018 study by Wang et al.)

Stroke is a major killer and causes long-term disability for many people who survive it. While wealthy countries have seen a significant drop in stroke incidence over the last forty years, the illness is becoming more burdensome in nations with low or middle incomes. Stroke incidence is on the rise in developing countries for a variety of reasons, including shifting demographics and epidemiology, a lack of resources for thrombolysis in instances of ischemic stroke, and ineffective primary and secondary prevention treatment. Reference: Wahab et al. (2015) This developing country's health indicators are expected to decline as a result of untreated stroke. The rising rates of cardiovascular illnesses like stroke alongside other cardiovascular problems, as well as the fact that we have not yet succeeded in eliminating infectious diseases like HIV/AIDS, TB, and malaria that is resistant to several drugs, pose serious threats to these countries. Although the rate of prevalence has fallen than that of better income nations, a recent systematic study found that the overall yearly incidence of attack is 29 every 100,000 individuals (95% confidence range) in Saudi Arabia. The yearly incidence of stroke approximates 76 per 100,000 in Australia and around 119 per 100,000 in New Zealand, respectively (Alkhotani, et, et; 2023) as an example. Nevertheless, stroke occurrence in Saudi Arabia varies between regions. The Aseer area had a higher incidence of 57.64 per 100,000 people per year (95% CI: 57.57-57.70), whilst Al Madinah had a lower incidence of 13.89 per 100,000 people.

Stroke risk factors are many and may start building up to considerable level years before the occurrence itself. By using the right measures, those at extremely susceptible of stroke may be identified and treated. In order to reduce the risk factors, it is essential to identify and alter these traits. Some of the risk factors that may be changed include high blood pressure, diabetes, heart disease, smoking, high cholesterol, drinking too much alcohol, having a history of TIA, central nervous system infections, oral contraceptives, dietary changes, anomalies with blood clotting, and migraines. Some risk factors cannot be changed, such as age, sex, ethnicity, and genetics..

Modifiable risk factors

Hypertension

Nonetheless, hypertension ranks high among the leading global killers. Medication and behavioral modifications may avert this condition. When environmental and lifestyle factors that raise the risk of cardiovascular disease alter in a way that is not immediately evident, a condition known as "primary hypertension" sets in.

Multiple toxins, iatrogenic disorders, or hereditary predispositions may lead to secondary hypertension.

Hypertension, which raises the risk of cardiovascular disease, is one of the main causes of mortality worldwide before the age of 65. Forouzanfar MH is one of many writers who have contributed to the work; others include Liu P, Faust GA that Ng M (for Biryukov S. and S. Marczak L.), and others. An estimated forty percent of people in 2008 will have hypertension by 2025, and that number is projected to rise to almost 1.5 billion by that year. Olsen MH, Amos SY, Asma S, Boutouyrie phosphorous, Donald D, Chirinos JA, along with others are written up in the study. South Asian countries are facing a major health crisis as the number of cases of age-standardized hypertension (hypertension) continues to climb. The researchers from the aforementioned institution found this in their study, et al. Several variables, including an older population, more individuals residing in the cities, and factors that are risky for behavior including fatty foods, drinking to excess, lack of physical activity, and long-term stress, have been linked to an increase in hypertension. The researchers from the aforementioned institution found this in their study, et al. According to Forouzanfar et al. (Medical tourism), many people in nations with low to middle incomes still lack access to diagnosis and treatment for hypertension, even though the disease is mostly preventable and there are numerous effective medications for it. Hypertension, which raises the risk of cardiovascular disease, is one of the main causes of mortality worldwide before the age of 65. Forouzanfar MH, Li P, Schott GA that Ng M, Marczak L, as well as others are among the writers of the research. Biryukov S is also involved. A little over forty percent of people in 2008 will have hypertension by 2025, and that number is projected to rise to almost 1.5 billion by that year. Among the several authors of the paper are Olsen MH, Shepherd SY, Boutouyrie P, Heinz D, Chirinos JA, and the position of Asma S. Since age-standardized artery pressure (BP) values are increasing across the board, trend figures reveal that this is an especially acute issue in South Asia. The researchers from the aforementioned institution found this in their study, et al. An older population, more individuals residing in cities, and behavioral factors including poor diet, heavy alcohol use, insufficient physical activity, and chronic stress has all been linked to a rise in hypertension. According to what Misra et al. Even though hypertension may be prevented in most cases and has several effective therapies,.

According to study conducted in Geneva, Switzerland in 2013, the majority of people in countries with low or medium incomes either fail to receive a diagnosis,

cannot get therapy, have high blood pressure, of none of the above. The authors of the study were Corsi DJ, Subramanian, Chow the CK, as McKee's M, which stands for Chifamba Z as well as Dagenais G, and others. Hypertension therapy, prevention, and management face several challenges, according to prior comprehensive research. Expensive care, a breakdown in communication between doctors and patients, people' mistrust of the system, and ineffective or nonexistent screening programs are just a few of the many issues plaguing the healthcare system. The work of Khatib and others (2013)

Even when the results are relevant, reviews like this one show that more qualitative research is needed in LMICs. Citation: Maimaris and others (2014). This is because most studies were conducted in high-income nations, and only a tiny fraction of studies conducted in countries with low and middle incomes (LMICs) employed qualitative research methodologies.

Because of the higher incidence, larger population, and less stable health systems in LMICs, it is critical to recognize the main obstacles to hypertension treatment in these areas.

Stroke risk factors for diabetic complications have recently been identified. Stroke may be induced by a immediate effect on brain arteries, but pathologic alterations in blood vessels can occur in other sites as well. Stroke survivors with uncontrolled diabetes had worse outcomes and a greater death rate after the event. Phase III clinical trials should examine the possibility that strict glucose control is linked to better outcomes throughout the acute stroke period. One of the best ways to prevent strokes and their instances of recur is to keep diabetes under control along with other risk factors..

Hyperlipidemia

heavy blood lipid levels are the result of an excessive intake of a diet heavy in cholesterol, which causes hyperlipidemia. Crucially, up to 60% of recorded patients in registries and clinical studies have elevated blood lipid, particularly cholesterol, levels (ElAli et al., 2011). Higher cholesterol (>7.0 mmol/L) is linked to a higher incidence risk of stroke (Leppälä et al., 1999). Although clinical studies have demonstrated that hyperlipidemia is a common risk factor for stroke incidence, the effects of hyperlipidemia on acute and post-acute stroke outcomes remain contentious. Hyperlipidemia has been shown to have a protective impact on stroke patients in several clinical studies, basically by lowering the death rates (Jimenez-Conde et al., 2010; Shigematsu et al., 2015).

Diabetes mellitus

Diabetes of type 2 has a complicated genesis; it is a metabolic illness with persistent symptoms and a broad spectrum of manifestations. Hyperglycemia, or high blood sugar, is one of the signs. This might be the result of an imbalance in insulin production, insulin action, or the combination of the two. There are several ways hyperglycemia might show itself, but it always results in metabolic dysfunctions that impact carbohydrates, lipids, and proteins. There is a very substantial association between diabetes and the incidence of stroke, as shown by Idris et al. (2006). Additionally, eight Diabetes substantially raises the risk of acquiring a variety of vascular disorders, even though it has no association to the more conventional risk factors for stroke across the year, such as ischemic stroke. Even among survivors of cerebrovascular disease, a quarter had a recurrence once two years, forty percent within five, and, most alarmingly, sixty-five percent of these people suffered an ischemic stroke. Shou et al. (2014) states that the heart is both a cause and a significant player in the etiology and consequences of stroke. In this setting, the brain and the heart are very related. Patients who just underwent a stroke may get treatment from experts in the field at state-of-the-art clinics. Cardiologists' expertise is crucial for several reasons, including the prompt diagnosis of causes and the monitoring and treatment of acute cardiovascular problems. Incorporating a cardiologist into integrated, diverse stroke care models improves the management of risk factors including atrial fibrillation (AF), arterial hypertension, valvular heart disease, and long-term secondary prevention. Specialists in cardiology, vascular surgery, neurology, neuro-radiology, physiotherapy, psychology, nutrition, social work, general medicine, and geriatrics are all part of the multidisciplinary team that treats and prevents strokes..

Alcohol intake

The link between alcohol use and an increased risk of various illnesses is well recognized. Addiction to alcohol or other drugs increases the risk of a number of health problems, including physical harm, cardiovascular disease, and cancer (HED). In a global context, these illnesses account for a significant portion of the premature death rate. While research on wine's impact on myocardial infarction is limited, it has been shown that moderate to elevated alcohol consumption is associated with a reduced risk of some heart attacks and strokes.⁶ The benefits of moderate or balanced consumption, which seem good at first look, could really be an enduringly enigmatic occurrence. A smaller number of large-scale studies

performed before to 1980 found that being drunk increased the risk of stroke, particularly hemorrhagic stroke. In the 1970s, several Russian papers explored the hypothesis that heavy drinking increased the likelihood of ischemic stroke. The general public at the time thought it didn't. According to early studies conducted in Finland as far back as 1978, heavy drinking in the last few years may be linked to an increased risk of ischemic strokes. Hillbom and Kaste (1978) had already made this claim. Since then, a plethora of new cohort and case-control investigations examining strokes caused by alcohol have been published..

Cigarettes smoking

Cigarette smoking is known to increase the likelihood of cardiovascular problems such as carotid cardiovascular disease, ischemic stroke, and clinical coronary artery disease. Stroke risk is two to four times more in heavy smokers than in nonsmokers. The relative risk of total nonfatal stroke was 2.71 for those who smoked extensively (more than twenty puffs of cigarettes per day) and 1.46 for catastrophic stroke, per a huge cohort study among 22,071 male doctors in the US. The risk of stroke is increased in people of all ages when people smoke cigarettes, and there is evidence that the amount of cigarettes smoked has a dose-response relationship with the risk of stroke. In 1995, Tang et al. Furthermore, smoking worsens the long-term effects of a stroke, such as the risk of cardiovascular events or death. (Wolf, et. al., 1988)

Nonmodifiable risk factor

Sex, racial or ethnic background, age, and heredity are instances for nonmodifiable risk factors (or risk indicators) for stroke. They say that stroke is an age-related disease. The incidence of stroke doubles every 10 years beyond a young age of 55, and it becomes increasingly prevalent with age. In a 2012 study, Roger et al. Ischemic stroke hospitalizations among persons aged 14–44 rose annually from 1995–2008, according to a US Nationwide Patient Sample research (George MG, et al., 2011). Patients older than 45 years old have a higher risk of hemorrhagic stroke (van Asch CJ, et al., 2010). Recent increases in the prevalence of the disease among younger people may be attributable, in part, to changes in diagnostic testing that would make it easier to detect strokes in patients with modest symptoms.

The association between gender and the risk of stroke is age dependent. In lower age groups, women have the same risk of stroke as men, if not greater. However, in

later age groups, males have a slightly higher relative risk of stroke. As stated by Kapral et al. (2005). Hormonal variables, such as hormonal contraceptives, pregnancy risks, and the postpartum period all increase the risk of stroke in younger women. Strokes are more common in women than in men because women tend to live longer than men. Stroke risk increased by a ten percent for women or 9% for men every year, according to a research done in eight European countries. ("Asplund K," n.d.).

It is also known that hereditary characteristics, including family and paternal history, increase the risk of stroke and cannot be changed. ("Seshadri S" et al., 2010). Genetic predisposition to stroke, like other risk factors, varies with age, sex, and ethnicity. The next part will go into further depth on genetics, namely heredity and genetic risk factors.

Racial disparities in stroke frequency are well-documented. This information is sourced from Cruz-Flores S. et al. (2011). There is a twofold rise in the incidence of a stroke and a greater risk of stroke-related death in Black persons compared to White people. Hispanics and Latinos in the United States also have a higher risk of stroke in certain populations. Among younger Black individuals, the disparity in stroke incidence is particularly pronounced; compared to Whites of the same age, they had a much greater risk of intracerebral and subarachnoid hemorrhage. Furthermore, compared to non-Hispanic Whites, American Indians had a greater incidence of stroke. The source is Zhang Y., et al. (2008). One possible reason for the racial disparities, according to the REGARDS research (Reasons for Spatial and Racial disparities in Stroke), is that Black people are more likely to have overweight or obese people, and hypertension, which are risk factors for stroke. But these additional risk factors don't explain why certain racial/ethnic groupings are at a greater risk. According to Howard VJ, et al. (2011). Rural locations may have a greater stroke incidence among people of African American descent, however this disparity might be attributable to barriers to healthcare access. Inequalities in stroke risk by race and ethnicity may be influenced by other factors, including language, place of birth, and other economical determinants of health. Racially disparities in stroke mortality are a direct result of racial disparities in stroke incidence, highlighting the need for preventative efforts that target minority populations. (G. Howard, et al., 2016). Recurrent stroke does not share the strong correlation between Black origin and ischemic stroke, which is an intriguing finding. The study was conducted by Howard G. and colleagues in 2016. The management of stroke risk variables after the first stroke may explain this..

Research objective

The researchers behind this study set out to identify the most prevalent risk factors among patients who arrive at the emergency room after suffering an acute stroke. The research aims to evaluate the present methods and treatments utilized to control and deal with the identified risk factors in vulnerable populations. This evaluation will include a look at the pros, cons, and challenges of the present approaches. Also found will be holes in healthcare delivery and patient education when it comes to managing risk factors and preventing strokes. By integrating previous research with real-world data, this study aims to shed light on the main risk factors associated with acute stroke. Conditions including high blood pressure, diabetes, obesity, smoking, lack of physical activity, and cardiovascular disease are all potential contributors. Research evaluates previous efforts to address the identified risk factors as well as potential future actions once factors that increase the likelihood have been recognized. Finding out what factors mostly contributed to the increase in stroke risk is the primary motivation for the research. This may be useful in determining how to treat the disease.

People who are already at high risk for stroke may be helped to avoid the worst case situation by following a guidance made possible by the information that is already available. Even if you haven't experienced risk factors yet, this guide may tell you what to do to reduce your risk of stroke. Stroke prevention strategies may be learned from this publication, even for individuals who haven't faced risk factors yet. Improving patient care and reducing the number of stroke fatalities requires addressing certain gaps in the healthcare system, which the review will reveal. Improving patient care and reducing the number of stroke fatalities requires addressing certain gaps in the healthcare system, which the review will reveal.

The study's overarching purpose is to increase understanding of stroke epidemiology, preventative measures, and treatment in order to better serve patients and reduce the societal toll of acute stroke..

MATERIAL AND METHOD

Subjective strategy for research has been utilized in this review, to examine and figure out the sensations, discernments, and data that patients who are encountering an intense stroke have about normal gamble factors connected with the sickness. The exploratory and unmistakable examination plan that has been utilized expects to decide the degree and expansiveness of patients' information in regards to normal gamble factors related with intense stroke. To be more exact, an observational strategy will be utilized to record the perspectives and lived encounters of stroke patients concerning risk factors. With a cross-sectional time skyline, this study expects to accumulate data from stroke patients at a specific second to comprehend their insights and current degree of information on risk factors. 45 stroke patients who were hospitalized to the clinical unit of Common emergency clinic Sukkur partook in this expressive review.

The patients were interviewed in order to gather data. Every patient was asked the following questions: At what point did you first notice anything was wrong? Please tell me whatever symptoms you encountered. Which of your beliefs did you find to be false? Have you ever had a stroke? Is anybody here who has had a stroke? What are the symptoms of a stroke, and are u aware of them? Is the cause of stroke anything you've considered? Is your primary care physician currently seeing you? Information was collected from the patient, their family, witnesses, and the medical record for patients with dysphasia. We did not include the patient's prior knowledge or feelings about the stroke in that the information unless they could communicate well. We collected information on our patients' ages, sexes, races, marital statuses, educational backgrounds, and health problems. The additional interview questions delved into the following areas: (1) availability of resources and how they are presently used for medical treatment education; (2) frequency of doctor's visits in the last year; (3) interest in learning more about dementia; (4) living circumstances; and (5) educational attainment.

A comprehensive examination was conducted on all patients to identify any potential risk factors for stroke. After gathering a thorough medical history, a thorough physical examination was carried out. Smoking, previous transient ischemic attacks (TIAs) or strokes, alcohol use, medicinal use (antidiabetic, antihypertensive, and oral contraceptive use by the female patient) were all part of the patient's medical history. Detailed clinical evaluations were carried out. The tests included electrocardiogram (ECG), blood (including ESR), lipid panel, and

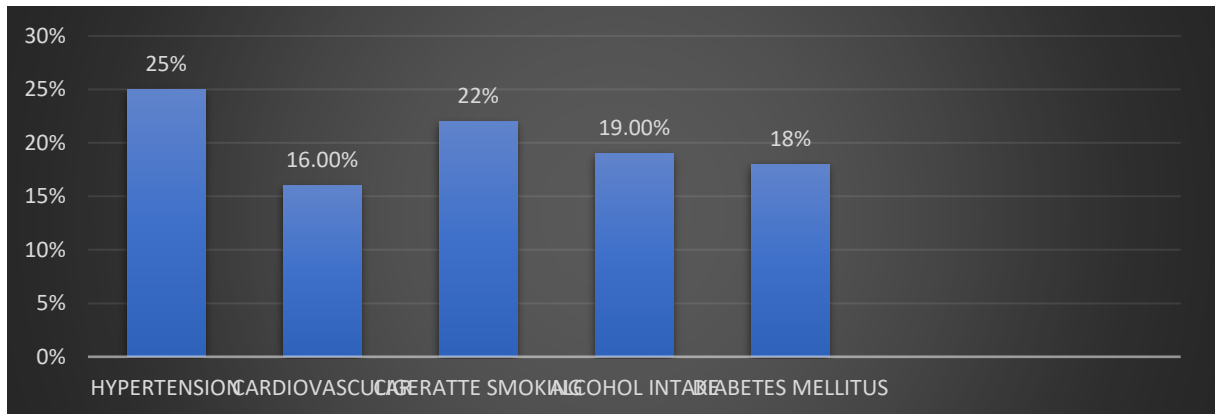
glucose levels. A CT scan of the brain was administered to all patients in order to identify the specific kind of stroke they had. Echocardiograms, carotid doppler flow studies, and contrast CT scans were administered to assess cardiovascular risk factors and confirm the diagnosis if needed. Hypertension was defined as a blood pressure reading more than 140/90 mmHg, a patient's use of antihypertensive medication, or a patient's family history of hypertension. According to the World Health Organization's standards, diabetes was diagnosed. According to NCEP III standards, dyslipidemia was diagnosed when a patient's total cholesterol, LDL cholesterol, and HDL cholesterol were abnormal..

RESULTS

The study covered all of the 45 patients with a confirmed stroke, of which 20 (44%) were male and 25 (55%) The average age of all cases was 35.5, whereas the average age of men and females was 29.5 and 35.6, respectively. (Table 1).

Table 1: Age and sex distribution of patients with stroke

Age group (Years)	Sex		Total
	Male	female	
25-30	6	4	7
31-35	5	3	8
36-40	4	5	10
40-45	5	4	9
46-50	3	5	8
>50	2	1	3
Total	25 (56%)	20 (44%)	45 (100%)

Figure 1: Risk factors identified by acute stroke patients:

Among every other department risk variables, hypertension was shown to be the most influential. Found in 25% of individuals. Both the male and female ratios were about equal. Acute stroke instances with hypertension often occur in young adults, between the ages of 25 and 30.

Acute stroke has many causes, but one of the most significant is cardiovascular disease, which affects 16% of patients. Alcohol use is another crucial component. Found in 22% of individuals with an acute stroke. After high blood pressure, this is the leading cause of death. The discrepancies can be attributable to geographical factors, given that both studies were carried out in Sindh, a province with a higher cigarette smoking prevalence. Stroke risk factors include cardiovascular diseases, such as atrial fibrillation and ischemic heart disease, which were detected in 16% of our patients..

Table 2 Stroke symptom knowledge (N=45)

<u>Symptoms</u>	<u>n</u>
Weakness in arm/leg	8
Speech difficulties	3
Facial drop	2
Vision drop	1
Dizziness	9
Reduced memory	7
Headache	10

Loss of balance	6
<u>Confusion</u>	<u>4</u>

The outcomes relating to information on stroke side effects are displayed in Table 2. Of the members, eight said that the most generally perceived side effect was shortcoming in the arm or leg. Face hang and discourse issues were less regularly noted, with 3 and 2 individuals, separately, perceiving these signs. Besides, 1 to 10 members had the option to recognize visual weakness, tipsiness, diminished memory, cerebral pain, loss of equilibrium, and disarray, demonstrating contrasts in mindfulness across different stroke side effects.

Table 3 Stroke treatment option knowledge (N=45)

Treatment	n
Blood thinners	5
Rehabilitation/training	4
Thrombolytic/clot-dissolving treatment	6
Drug (undefined) given quickly	4
Physiotherapy	8
Drug (undefined)	6
Operation	7
Diet	4
<u>Intravenous fluid</u>	<u>1</u>

comprehension members might interpret accessible stroke medicines is displayed in Table 3. Five and four members, separately, proposed blood thinners and restoration/preparing as conceivable remedial modalities. Six subjects affirmed getting thrombolytic or cluster dissolving treatment, while four and eight individuals, separately, conceded getting physiotherapy and a unidentified drug given expeditiously. Six and seven members, separately, revealed that an activity and a unidentified drug were potential types of treatment. IV liquid organization and dietary treatments were referred to less much of the time, by 4 and 1

participant(s), separately. Among every other department risk variables, hypertension was shown to be the most influential. Found in 25% of individuals. Both the male and female ratios were about equal. Acute stroke instances with hypertension often occur in young adults, between the ages of 25 and 30.

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Discussion

Stroke is a possible cause of morbidity and motility. It affects older males at a higher rate than younger women. Compared to what we see throughout the US, the results are much different. The fact that Americans understand and can manage risk factors better than Pakistanis may account, at least in part, for the difference in life expectancy between the two countries.

Hypertension was listed by 25% of those as a significant risk factor, which is in line with other studies conducted in Pakistan. A high blood pressure reading significantly raises the risk of hemorrhagic and ischemic strokes. Research has shown that vascular events may be greatly reduced by lowering blood pressure. Our patient population had a somewhat lower prevalence of diabetes mellitus (18% vs. 30%) than previous local investigations.^{12,20} Nobody said what caused it. One in sixteen people had type 2 diabetes. Both of these factors of risk which often occur together, raise the likelihood of cardiovascular disease and stroke. One of the key factors was the usage of tobacco. 22%, which is less than what was seen in earlier studies. Approximately 44% and 53% of the total, and 16.17 Maybe it's because of where you are. All of our patients had cardiovascular illnesses, which increase the risk of stroke. This includes ventricular fibrillation (19%) and coronary heart disease (16%). A person's past drinking habits were revealed by a patient.

According to our research, hypertension combined alcohol use are two of the main causes of stroke. Tragically, the majority of our patients lacked the necessary education to fully comprehend the grave consequences of their risk factors, including uncontrolled diabetes, smoking, and others. Our results demonstrate that insulin is the primary factor influencing stroke variability, which is in line with other research done in Pakistan. Regardless, both studies were conducted in Sindhi and Lahore, two cities with much higher cigarette smoking rates.

The majority of stroke awareness campaigns have ignored possible therapies in favor of examining risk factors and symptoms. It is very improbable that recognizing symptoms would automatically result in taking action unless there is clear knowledge about available treatment options and, more significantly, if the condition is not seen as urgent. The need of moving quickly to get the best treatment alternatives should be emphasized in public awareness campaigns. Only 15.0% of Italian patients who answered the closed-ended questions on their knowledge of stroke facilities and 26.2% of those same patients knew that tPA treatment was a possibility. A study conducted in Canada compared two groups, one from 2010 et the other from 2015, to assess patients' awareness of stroke preventative practices. Both in 2010 and 2015, medicine was the main therapy for most patients. In 2015, a slightly larger number of patients mentioned exercise with stenting.

Natural remedies, other pharmaceuticals, surgery, blood pressure control, and cardiac massage were the acute stroke treatment alternatives most recommended by 12.1% and medications that destroy blood clots or thin blood by 21.0%, respectively, in a 2001 research. Nearly two-thirds of those who took the survey were unable to come up with even one of these viable solutions.¹⁰ A quarter of those surveyed are aware of drugs that dissolve clots of or thin blood, but 70% are unable to identify any therapies; this research does not immediately relate to our situation, but it does demonstrate that there are options. The study's use of telephone interviews rather than actual patients experiencing a sudden, severe stroke is probably to blame for this. Despite 85.5% of participants agreeing that time is vital for stroke therapy, only 11.5% of patients were aware of why this is so important. It seems that some patients are aware of the choices they have. When it came to symptom knowledge, participants most frequently identified weakness in the arm or leg, headache, and dizziness. But other symptoms, such trouble speaking, drooping of the face, and blurred vision, were less commonly found, suggesting differences in awareness among various stroke symptoms. This

emphasizes how crucial it is to launch public education campaigns to raise knowledge of all possible stroke symptoms in order to enable early detection and timely medical care.

The study found that patients' degrees of knowledge of available treatment options differed. Some participants demonstrated inadequate awareness of treatments such thrombolytic/clot-dissolving medication, rehabilitation/training, and blood thinners. Among the participants, physiotherapy was found to be one of the more well-known forms of treatment. These results emphasize the necessity of thorough patient education.

CONCLUSION

Our review closes by featuring the squeezing need for additional information and guidance on the normal gamble factors connected to intense stroke among patients who visit clinical offices. Our information show that patients' consciousness of normal gamble factors is low, in spite of the seriousness and recurrence of stroke. Among the review populace, critical gamble factors were liquor utilization, cigarette smoking, diabetes mellitus, cardiovascular sickness, and hypertension. The high recurrence of modifiable gamble factors, for example, hypertension, which is perceived as the most well-known risk factor is particularly concerning with regards to cerebral discharge cases. Diminishing the weight of stroke and its related dangers can be accomplished by tending to modifiable gamble factors through designated intercessions, for example, mindfulness crusades, predictable drug use, and way of life changes. Our outcomes feature the need of starting cross country programs for stroke avoidance that focus on creating suggestions, arranging public mindfulness crusades, and empowering way of life changes to bring down the gamble of stroke. To really reach and instruct the general population, these exercises need be tweaked to the specific financial and social setting of Pakistan

All in all, we can try to bring down the occurrence, horribleness, and mortality of stroke in Pakistan by raising public mindfulness, empowering deterrent measures, and giving admittance to medical care administrations. To do this and improve the country's stroke care climate in general, participation between officials, medical services experts, and local area partners is pivotal.

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Appendix (Questionnaire)

1. Do you know what is stroke?
2. Do you have any family History of Stroke?
3. Do you have any personally know someone with stroke?
4. Have you ever read/heard about a disease called stroke?
5. Is stroke a disease of the brain?
6. Do you think homeopathic treatment is beneficial for stroke?
7. Is stroke a hereditary disease?
8. Do you think stroke is caused by ancestor's sin?
9. Do you think stroke can be prevented?
10. Is stroke an old person disease?
11. Which of the following are warning signs of stroke?
12. Have you realized hypertension is the root cause of acute stroke?
13. Have you realized cardiac disease is the root cause of acute stroke?
14. When did you initially realize there was a problem?
15. Which symptoms did you experience?
16. What did you believe was incorrect?
17. Did you ever experience a stroke?
18. Who among you has experienced a stroke?
19. Are you aware of the stroke's warning signs?
20. Have you realized from which factors stroke arises?