mental health are key to preventing or reducing complications, improving the quality of life for people with diabetes. It's important to raise awareness about the need for routine checkups and to encourage people with diabetes to take an active role in managing their health.

### LITERATURE

1. Harrison's Book Of Internal Medicine Edition 20th Chapter 176, Diabetes Mellitus.

## УДК 616.12-008.331.1-037:616.831-005.8-052

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## RISK FACTORS OF ARTERIAL HYPERTENSION IN STROKE PATIENTS

## Introduction

Hypertension, often referred to as high blood pressure, is a significant public health concern globally, affecting millions of individuals. It is a primary risk factor for various cardiovascular diseases, including stroke. Stroke, a leading cause of morbidity and mortality worldwide, can be classified into two main types: ischemic and hemorrhagic. The relationship between hypertension and stroke is well-established, with elevated blood pressure contributing to the pathophysiological mechanisms that lead to both types of strokes. Patients with hypertension are at a substantially increased risk of experiencing a stroke compared to those with normal blood pressure levels. Epidemiological studies have demonstrated that for each increment of 20 mmHg in systolic blood pressure or 10 mmHg in diastolic blood pressure, the risk of stroke doubles. The prevalence of stroke among hypertensive patients varies significantly across different populations, influenced by factors such as age, gender, lifestyle, and the presence of comorbidities like diabetes and hyperlipidemia [1–5].

## Goal

To assess the prevalence of arterial hypertension among patients with stroke, identifying risk factors and demographic variations to inform targeted prevention strategies and improve clinical outcomes.

# Material and methods of research

An analytical survey targeting the Belarusian patients in Gomel state clinical hospital no 3 Gomel, Belarus, was conducted to asses dietary habits, health status and symptoms of hypertension. Participants consented to an online questionnaire, which gathered salt and diet intake frequency, family history of hypertension, smoking, age. The study also included Review on transition of patient from hypertension to stroke, summarizing and comparing the findings, methodologies and limitations of the most pertinent sources.

A survey was conducted on 30 Belarusian patients with arterial hypertension, of whom 70% were male and 30% were females. These 30 Belarusian patients have been classified into three groups namely: patients with ischemic stroke, hemorrhagic stroke and patients with no stroke (control group).

# The results of the research and their discussion

Recent studies have shown consistent results about the relationship between stroke and hypertension. The prevalence of stroke in hypertensive patients was identified globally.

All the patients with stroke (100%) have arterial hypertension (tab. 1).

Table 1 – Risk factors of arterial hypertension depending on stroke

Risk factors	Ischemic stroke No of patients = 18	Hemorrhagic stroke No of patients = 2	No stroke No of patients = 10
1. Age above 65y	18 (100%)	2 (100%)	4 (40%)
2. Sex : Male	12 (66.6%)	2 (100%)	6 (60%)
Female	6 (33.34%)	_	4 (40%)
3. Salt consumption>2g/day	9 (50%)	1 (50%)	3 (30%)
4. Family history of hypertension	8 (44.44%)	No family history	4 (40%)
5. Smoking	14 (77.77%)	1 (50%)	6 (60%)

Patients with stroke has more risk factors of arterial hypertension, such as salt intake >2 g/day and smoking history, than patients without stroke and only arterial hypertension (fig. 1).

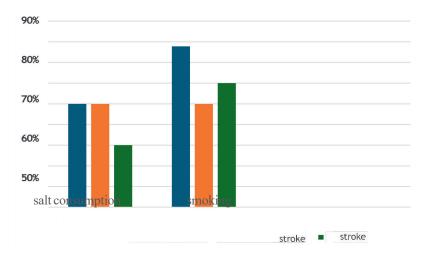


Figure 1 — Risk factors of arterial hypertension depending on stroke

Our findings suggest that targeted interventions, such as lifestyle modifications, pharmacological therapy, and regular monitoring, can significantly reduce the risk of stroke in hypertensive patients.

# **Conclusions**

In conclusion, our study highlights the significant burden of stroke among hypertensive patients, emphasizing the need for intensified efforts in hypertension management and stroke prevention. The prevalence of stroke in our study population was alarmingly high, underscoring the critical importance of early detection and treatment of hypertension. This study concludes that increase salt intake >2g/day and smoking are the major risk factors of hypertension, which associated with stroke in patients. Ultimately, our study's results reinforce the importance of prioritizing hypertension management and stroke prevention as a critical component of public health strategies, with the aim of reducing the devastating consequences of stroke and improving the quality of life for millions of people worldwide."

## LITERATURE

<sup>1.</sup> World Stroke Organization: (web) – WSO. – URL: https://www.world-stroke.org/news-and-blog/news/wso-global-stroke-fact-sheet-2024n) (date of access: 19.02.2025).

<sup>2.</sup> Kokkinos, P. Overview of Complications in Cirrhosis / P. Kokkinos // Hypertension. – 2024. – № 32. – P. 653–660.

- $3. \ New England journal of medicine (webs) NEJM. URL: \ https://evidence.nejm.org/doi/abs/10.1056/EVIDoa2300058 \ (date of access: 19.02.2025).$
- 4. THE LANCET (web) TL. URL: https://www.thelancet.com/journals/langlo/article/PIIS2214- 109X(22)00238-8/fulltext (date of access: 19.02.2025).
- 5. National institute of health: (web) NIH. URL: https://pmc.ncbi.nlm.nih.gov/articles/PMC10332068/ (date of access:19.02.2025).

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# PREVALENCE OF UNAWARENESS OF CHOLESTEROL LEVELS AND RISK OF HYPERTENSION

## Introduction

High Cholesterol (Hyperlipidaemia) is a significant public health concern that contributes to cardiovascular diseases (CVD), including hypertension [1]. This study aims to assess the prevalence of unnoticed cholesterol levels among different demographic groups and analyse its association with hypertension. Using an online questionnaire, data were collected from a diverse population regarding their cholesterol awareness, health behaviours, and medical history. The results indicate a substantial portion of the population remains unaware of their cholesterol levels, and there is a notable links between unknown cholesterol level and the risk of hypertension. This research underscores the need for increased awareness and regular cholesterol screening to mitigate cardiovascular risks [2].

Cardiovascular diseases are a leading cause of mortality worldwide, with hyperlipidaemia being a significant risk factor. Cholesterol, though essential for various bodily functions, can lead to atherosclerosis when present in excess. The relationship between high cholesterol levels and hypertension is well-documented, as both conditions often coexist and compound the risk of severe health issues. Despite the known risks, many individuals remain unaware of their cholesterol levels, which can lead to unnoticed hyperlipidaemia and its associated complications [3]. This study investigates the prevalence of unaware levels of cholesterol within a diverse population and examines the link between these levels and the risk of hypertension [4].

### Goal

The primary objectives of this research are: Evaluate the relationship between unnoticed and lack of awareness of cholesterol levels and risk of hypertension. Identify demographic factors that influence cholesterol awareness and health behaviours. Provide recommendations for improving cholesterol screening and awareness.

# Material and methods of research

Research Design: This study was designed as a cross-sectional observational study conducted over a period of 1 months. The questionnaire was distributed online to ensure broad accessibility and diversity in responses. 70 participants were selected from general population (students of Gomel, students in India corporate employees, teachers, parents etc.) from different places (Belarus, India, Sri Lanka, Nigeria etc.) where individuals were asked about their cholesterol levels, cholesterol awareness, underlying health conditions, family history and lifestyle related questions through a survey in Google forms.