

# GEORGIAN MEDICAL NEWS

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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии  
საქართველოს სამედიცინო სიახლენი

## GEORGIAN MEDICAL NEWS

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**GMN: Georgian Medical News** is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

**GMN: Медицинские новости Грузии** - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

**GMN: Georgian Medical News** – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

### WEBSITE

[www.geomednews.com](http://www.geomednews.com)

## К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman (Кириллица)**, для текста на грузинском языке следует использовать **AcadNusx**. Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - <http://www.spinesurgery.ru/files/publish.pdf> и [http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html) В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректур авторам не высылаются, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

**При нарушении указанных правил статьи не рассматриваются.**

## REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or computer-printed on a single side of standard typing paper, with the left margin of 3 centimeters width, and 1.5 spacing between the lines, typeface - **Times New Roman (Cyrillic)**, print size - 12 (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: [http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html)  
[http://www.icmje.org/urm\\_full.pdf](http://www.icmje.org/urm_full.pdf)

In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

**Articles that Fail to Meet the Aforementioned  
Requirements are not Assigned to be Reviewed.**

## ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx**. შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრაფიების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალებების შედეგების ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფხიხლებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

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## IMPLICATION OF THREAT FACTORS AND PREEXISTING DISORDERS IN DIFFERENT ISCHEMIC STROKE SUBGROUPS IN ELDERLY PEOPLE: A SYSTEMATIC STUDY

Balbeer Singh<sup>1</sup>, Soubhagya Mishra<sup>2</sup>, Rajnish Kumar<sup>3</sup>, Devanshu J. Patel<sup>4</sup>, Malathi.H<sup>5</sup>, Bhupendra Kumar<sup>6</sup>.

<sup>1</sup>Associate Professor, Department of Pharmacy, Vivekananda Global University, Jaipur, India.

<sup>2</sup>Professor, Department of General Medicine, TMMC&RC, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India.

<sup>3</sup>Associate Professor, Department of Pharmacy, Noida Institute of Engineering and Technology (Pharmacy Institute), 19 Knowledge Park 2 Greater Noida, Uttar Pradesh, India.

<sup>4</sup>Associate Professor, Department of Pharmacology, Parul University, PO Limda, Tal. Waghodia, District Vadodara, Gujarat, India.

<sup>5</sup>Assistant Professor, Department of Life Sciences, School of Sciences, JAIN (Deemed-to-be University), Karnataka, India.

<sup>6</sup>Assistant Professor, School of Pharmacy & Research, Dev Bhoomi Uttarakhand University, Dehradun, India

### Abstract.

Ischemic stroke is a major health issue, especially for the older population and it may have severe effects. Stroke diagnosis and treatment have advanced over the last 20 years, which has resulted in considerable reductions in death, long-term impairment, and the need for institutional care. Younger age groups have seen the majority of trials for acute, interventional, and preventive therapy. The purpose of this research was to identify distinct subgroups of older people who had suffered an ischemic stroke and examine the role that risk factors and previous illnesses played in their development. Ischemic stroke risk factors varied by age, gender and exhibited their own unique features. Smoking, cholesterol, and psychological/emotional stress were shown to have the greatest prevalence ( $p < 0.06$ ) among stroke patients aged 45–60. Smoking is associated with a significant ( $p < 0.07$ ) decline in health in elderly people. Our results imply that there are significant patterns of risk factors and preexisting illnesses among the various subgroups of older people who have had an ischemic stroke. Atherosclerotic (large-artery) and cardio embolic (small-artery) ischemic strokes were shown to be the most prevalent among the elderly. Strong associations were found between these subtypes and other risk factors, including higher cholesterol, diabetes, high blood pressure, and atrial fibrillation. This research emphasizes the need for individualized preventative methods and therapeutic therapy, as well as the need to recognize the variability of ischemic stroke in the elderly.

**Key words.** Ischemic stroke, elderly people, diabetics, risk factors, and blood pressure.

### Introduction.

The severe effects of stroke are especially dangerous for young people because stroke-related disabilities have a lasting effect on production and standard of life. With a 50-year-old cutoff age, in wealthy people, 10% – 14% of strokes, that chemic is categorized as strokes among the young. Stroke in these particular environments is distinguished by an earlier commencement in life, coupled with unfavorable predictions in the long run [1]. Stroke is considered to be one of the primary contributors to both illness and death on a global scale. And its treatment has a substantial cost effect. The global effects of diseases and accidents in 2015 and risk factors for stroke report states although age-standardized rates of mortality and the incidence of stroke have declined in recent years, the overall

cost of stroke remains high [2]. Stroke ranks among the top three global causes of death and disability. Two categories are used to classify it: Both ischemic and hemorrhaging strokes are present with ischemic stroke constituting about 75% (80%–85%) of cases. The ischemic stroke is a severe medical illness characterized by the obstruction of a blood vessel, resulting in the cessation of blood flow to a specific region of the brain [3].

The major basis for understanding the cause of stroke is the limited number of case studies conducted at individual centers. As a result of these factors, extracting definitive results on the significance of imaging and histological characteristics of clots, as well as the prognosis and pathogenesis of acute stroke, becomes challenging. The present state of thrombus investigation in cases of acute ischemic stroke caused by major vascular blockage [4]. Handling teenage and elderly patients with a patent foramen ovale (PFO) and cryptogenic ischemic stroke presents a therapeutic challenge for psychiatrists, cardiologists, and primary care physicians. Antiplatelet medications, anticoagulant medications, and percutaneous embedded PFO closure devices are the most effective treatments for preventing stroke recurrence [5].

Study [6] examined the frequency of stroke risk variables and the ways in which, they differed according to the kind of hemorrhage. The study was devised utilizing hospital medical records to ascertain the occurrence of stroke categories and their associations with risk factors. Research [7] suggested the risk factors, incidence, and prevalence of Atherosclerosis-Related Cardiovascular Disease (ASCVD). In the adult population, there was a clear rise in Peripheral Artery Disease (PAD), in addition to the high incidence, prevalence, and risk factors of ASCVD. Investigation [8] described the threat factors for stroke in children, their frequency when present alone or in combination, and potential shared risk factor patterns. With the absence of discernible patterns in the combinations of risk factors, it was imperative thorough standardized investigations that can be conducted for every instance of childhood stroke. These investigations should encompass comprehensive arterial and vessel wall imaging performed by expert neuroradiologists. Paper [9] investigated the relationship between the overall CSVD score and long-term outcomes in individuals with acute ischemic stroke who were followed up. It was possible that individuals who possess a higher cumulative score on the cerebral small vessel disease (CSVD) scale can have received inadequate treatment in terms of rehabilitation or medicine



for the purpose of preventing subsequent strokes. Study [10] provided a comprehensive and standardized assessment of the global impact of illnesses, accidents, and Risk Variables at national, regional, and worldwide scales. Planning and allocating resources for evidence-based stroke care required access to updated data on stroke and its pathological forms.

Study [11] focused on ascertaining the connection between adult ischemic stroke risk and genetic hemophilia. Additional research was required to ascertain the potential influence of inherited thrombophilia on clinical outcomes, specifically in relation to the recurrence of stroke. Research [12] designed to recognize and explain the major stroke risk factors that are probably to be altered. Investigation [13] evaluated the significance of changeable health variables on the changing frequency of strokes caused by ischemia (IS) using individual survey data from a large sample.

Research [14] suggested case-control research that looked at the relationship between circulatory microRNAs and acute ischemic stroke. They looked for studies on the connection between flowing micro ribonucleic acid and acute strokes in ischemic patients in the databases of the Healthcare Literature Assessment and Recovery System Online (Medline), Cumulative Index to Nursing and Aside Healthcare Literary Works (CINAHL), Comprehensive Library, internet of comprehension Scopus, and PubMed. Paper [15] intended to assess the incidence of obstructive sleep apnea (OSA) in cardiovascular disease (CVD) patients. Thus, it was crucial to diagnose and treat OSA. For those who have OSA, the prevention of CVD was crucial.

Research [16] demonstrated a rising incidence of cardiovascular risk factors among young persons diagnosed with an ischemic stroke (IS). Nevertheless, the extent to all vascular risk variables are associated with early-onset ischemic stroke (IS) remains incompletely established. Study [17] examined the risks and contributing variables for dementia both before and after a stroke or transient ischemic attack. Investigation [18] recommended the age of the patient to assess if endovascular treatment (EVT) is more cost-effective than standard treatment (SC) for individuals with large-vessel blockage stroke who are 50 to 100 years of age or older. Research [19] proposed the impact of colchicine on the prevention of transient ischemic attack (TIA) and primary as well as secondary stroke in the adult population. The stroke preventive benefits of colchicine are believed to be mediated through its anti-inflammatory properties, which are thought to mitigate the progression and destabilization of plaque. Study [20] examined the modalities of acute stroke assessment and care that impacted the chance of stroke-associated pneumonia. That was undertaken to examine a group of persons who had suffered from a stroke and had undergone evaluation for difficulty screening, assessment, or therapy, with particular attention given to the occurrence of pneumonia.

The primary objective of this study was to ascertain discrete subpopulations in the elderly demographic who had experienced an ischemic stroke while investigating the influence of risk factors and preexisting medical conditions on their susceptibility to this condition.

## Materials and Methods.

This method gathered 213 ischemic stroke patients, aged 45 to 91, treated in the second clinic of the Tashkent Healthcare

Academy, who were included in this prospective study. The patients were categorized into three categories of age: middle (34.3%; 45-60 years), senior (47.4%; 61-75 years), and elderly (18.3%; 76-91 years). Patient's prior medical histories are displayed in Table 1.

**Table 1.** Prior medical history of the patients.

Age	Men		Women		Total	
	No. of peoples	%	No. of peoples	%	No. of peoples	%
45-60 yrs	41	34.7%	32	33.7%	73	34.3%
61-75 yrs	59	50.0%	42	44.2%	101	47.4%
76-91 yrs	18	15.3%	21	22.1%	39	18.3%
<b>Sub Total</b>	<b>118</b>	<b>55.4%</b>	<b>95</b>	<b>44.6%</b>	<b>213</b>	<b>100%</b>

Data assurance in the relationship between the males and females ( $p < 0.07$ ). 95 women (44.6%) and 118 men (55.4%) made up the average age of  $65.2 \pm 0.76$  years. An extensive clinical, laboratory, and neuroimaging assessment was performed on each patient. The procedure entailed comprehensive evaluations of neurological, physical, and neurophysiological factors. Examples of diagnostic tests that are used in medical practice include a dynamic electrocardiogram (ECG), a chest radiograph (x-ray), clinical evaluations, biochemical blood testing, and urine analysis.

The “chi-square test” is statistical analysis that compares the observed frequencies of two or more groups to their expected frequencies. It is commonly applied when analyzing the distinct nature of two category variables. The two distinct categorical variables in this case are gender and age group. For every age group and gender, the observed frequencies represent the percentages of each type of stroke and associated risk factor. If there was no correlation between age group and gender, the predicted frequencies are the percentages that would be expected.

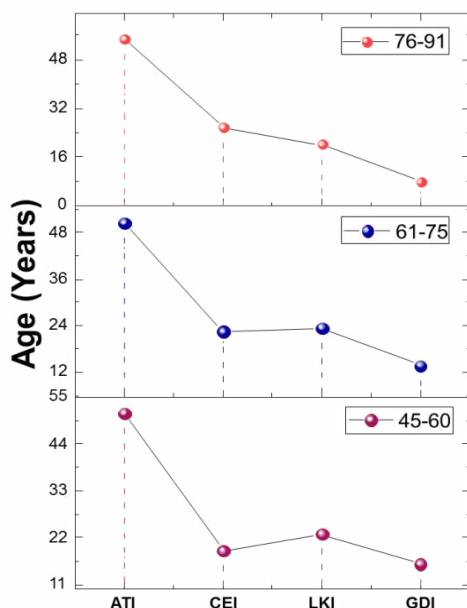
## Results.

In the 45–60 age group, the most common types of strokes were atherothrombotic stroke (ATI) 51.2% with 29 cases, cardiac embolic stroke (CEI) with 18.9% 10 cases, lacunar stroke (LKI) with 22.8% 12 cases, and hemodynamic stroke (GDI) with 15.8% 8 cases. The findings suggest that the prevalence of cardiac sickness increases with advancing age. Among all age groups, ATI is the most observed illness, followed by LKI, which is more prevalent in older individuals. CEI and GDI are subsequent in terms of prevalence, where LKI shows a decline in prevalence compared to CEI among the senior population.

We employ the chi-square test to identify a statistically significant difference in the occurrence of stroke types among various age groups. The chi-square test statistic is 18.49, and the p-value is less than 0.07. Stated differently, age group and gender are statistically significant correlated.

Regarding rates of 67.6% and 68.7%, respectively, there was a substantial ( $p < 0.06$ ) rate of ATI in men ranging from 45–60 and 61–75 years. Figure 1 displays the patient distribution under examination based on age-grading and the pathogenic type of ischemic stroke.

A decrease in the percentage of GDI and LKI in senile adults was linked to a spike in the proportion of people with ATI to



**Figure 1.** Patient distribution under examination based on age-grading and the pathogenic type of ischemic stroke.

54.7% and 74.4%, respectively, among men and women. The sensitive aspect of CEI was disproved by the fact that the prevalence of the condition in men and women was equal in all age groups.

Considering the varied incidences of stroke in individuals between the ages of 45-60, the highest percentages ( $p < 0.06$ ) were associated with the smoking component (56.1%; 39 patients), cholesterol (52.7%; 37 patients), and cognitive and emotional strain (41.8%; 27 patients).  $p < 0.07$  indicates a substantial decrease in the smoking factor among old and senile individuals.

Nicotine exposure's pathogenetic effects on the brain are associated with altered cardiovascular health and vascular tone, hemorheological parameter violations and fast atherosclerosis progression that results in the development of extracranial arterial stenosis. Smoking interferes with metabolism (a shift in the pH state towards acidosis) and microcirculation (due to a difficulty with cerebrovascular reactivity). These changes can be seen in the presence or lack of platelet aggregates, atherogenic changes in the metabolism of lipids, infractions of free radical procedures, and atherosclerosis vascular changes. These changes happen before hemodynamically relevant signs of atherosclerosis of the arteries.

In elderly people, hypodynamia, overweight, and cholesterol predominated ( $p < 0.06$ ) in the absence of obvious uncomfortable anomalies. According to studies by other writers, the likelihood of having a stroke increases eightfold if three of the five risk criteria are satisfied. Furthermore, compared to individuals between the ages of 45 and 60 (39.3%; 22 patients), older patients (58.0%; 53 patients) are more likely to have an association more than three risk factors.

Patients between the ages of 45 and 60 years old showed the prevalence of cardiac rhythm problems, rheumatic (47.8 and 49.5%, correspondingly), hypertension of the arteries (93.5%; 54 patients), cholesterol (88.4%; 51 patients), and insulin resistance (24.7%; 14 patients) in the context of background diseases. Ischaemic coronary heart disease (CHD) and a temporary ischemic attack (TIA) affected people between the ages of 45 and 60 in 19.8% of cases (11 patients). Men were considerably more likely to have coronary artery disease, hypertension of the arteries, CHD, TIA, arthritic conditions, and a history of diabetes ( $p < 0.06$ ), whereas women were more likely to have heart rhythm disorders and diabetes mellitus ( $p < 0.06$ ).

Increased brain vascular tone on ultrasound dopplerography provided further proof of the condition in patients undergoing an acute stroke without an official determination of arterial hypertension. This is valid for women who are younger than 59. Men older than 44 years old showed symptoms of atherosclerosis, which included a decline in the brain arteries' elastic qualities and a decline in tone markers.

As people aged, their incidence of ischemic heart disease (IHD), TIA, and cardiac rhythm abnormalities increased along with their atherosclerotic proportions ( $p < 0.06$ ), contributing an increase in the rate of arterial hypertension. The sensitive differences in the organization of background illnesses levelled off when the specific weights of atherosclerotic in women ( $p < 0.06$ ) and diabetes mellitus in senior men ( $p < 0.06$ ) climbed. Simultaneously, among older men the particular weights of Ischaemic coronary heart disease (CHD) and TIA in the background disease structure continued to be prevalent ( $p < 0.06$ ).

### Conclusion.

Among individuals in the 45-60 age group, the following rates apply atherothrombotic dementia (ATI) 51.2% (29 cases), cardio embolic dementia (CEI) 18.9% (10 cases), stroke with lacuna (LKI) 22.8% (12 cases), and hemodynamic dementia (GDI) 15.8% (8 cases). The most prevalent findings across all age categories were ATI, which was followed by GDI as well as KEI in the elderly. LKI gave way to KEI in older people, indicating an increase in cardiac pathology with age. Men in the 45-60 and 61-75 age groups had a significant ( $p < 0.07$ ) rate of ATI (67.1% and 68.7%, respectively). In AI, cigarette use (67.3%), cholesterol (63.1%), psycho-emotional distress (47.3%), overweight (43.6%), and psycho-emotional tension (64.5%) were identified to be the most common risk factors in men aged 45-60. With the overall incidence of depression (49.1%), overweight (52.9%), lipid disorders, and combo risk factors (69.5%), gender inequalities were lessened in elderly patients. As people aged, their rates of coronary artery disease (CHD), ischemic heart disease (IHD), TIA, and irregular cardiac rhythms all increased ( $p < 0.06$ ), which in turn increased the proportion of arterial hypertension. Specific weights increased for both diabetic mellitus in older men ( $p < 0.06$ ) and atherosclerosis in women ( $p < 0.06$ ), leveling out the gender differences in the underlying health structure. The goal of this study was to isolate certain subgroups of older individuals who have experienced an ischemic stroke and investigate the

influence of risk factors and prior medical conditions on their development.

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