



STRUCTURE OF CLINICAL AND NEUROLOGICAL INDICATORS FREQUENCY OF ACUTE CEREBRAL STROKES IN MIDDLE-AGED MEN

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Annotation

The article discusses the structure and incidence of acute cerebral strokes in middle-aged men and women in comparison with the elderly and senile group. A noticeable predominance of AI was revealed in middle-aged and elderly men, when in old age there is a clear advantage of stroke in women. An attempt has been made to study the causes of this condition of digital indicators, detailing background diseases in men in different age groups when comparing their data with dyscirculatory encephalopathy.

Keywords: frequency and prevalence, cerebral atherosclerosis, arterial hypertension. Currently, CVD, in particular acute disorders of cerebral circulation, have a clear tendency to increase. [2,4] The existing domestic and especially foreign literature testifies to the establishment of an important medical and social problem of acute cerebral stroke in the society of mankind of the globe.[1,8] Stroke can develop at any age, but its frequency and prevalence increase with age. About 80% of strokes occur in people over the age of 65, while age has a big impact on stroke outcomes. [6,3] However, the statistics of recent years indicate a noticeable rejuvenation of stroke. [5,8,11] Earlier it was said that the increase in the likelihood of stroke in older people is due to age-related changes primarily in both blood vessels supplying the brain and the brain itself[7]. It is known that the risk factors for stroke and especially the pathophysiological mechanisms of ischemic brain damage differ in elderly and young people. Moreover, elderly patients are characterized by more severe neurological symptoms with the formation of poorly or not at all recoverable paralysis, higher cortical functions (motor and sensory aphasia, apraxia, gnosis, calculi, agraphia and alexia ...), sensitive and coordinating spheres and a relatively severe stroke. Also, elderly patients often receive less effective therapy than younger ones, and cerebral stroke develops mainly against the background of my pathology (cerebral atherosclerosis, arterial hypertension. their combination, diabetic micro- and macroangiopathies, hemodynamically significant and sometimes insignificant stenosis, pathological deformities of the vessels of the brachiocephalic system....),





which of course causes an unfavorable outcome of the disease. The patient's age is one of the main unmodifiable risk factors, regardless of the type and subtype of stroke. After the age of 55, the probability of stroke doubled every ten years, regardless of gender [28]. It has been shown that 75-89% of stroke cases develop after 65 years, 50% of them - in patients over 70 years old and about 25% - after 85 years, while age negatively affects stroke outcomes [32]. However, the statistics of recent years suggest that there is a clear trend towards rejuvenation of cerebrovascular diseases, in particular acute disorders of cerebral circulation. Maybe this is due to the rejuvenation of atherosclerosis and arterial hypertension, both symptomatic and idiopathic, i.e. banal hypertension of varying severity. In this regard, by now there is a need to conduct targeted research to study the pathogenesis and clinical features of cerebral strokes in young and middle-aged people. Moreover, all of the above clinical issues of stroke development have their own gender characteristics in men and women.

Materials and Methods

The aim of the study was to study the comparative indicators of clinical and neurological studies of acute cerebral strokes in men and women in middle age.

In this work, the analysis of the results of a comprehensive clinical and neurological examination of 173 patients treated in the intensive care and neurological departments of the 1st TMA clinic was carried out. The selection criteria were: patients with ischemic stroke in the acute period aged 44 to 85 years. The age gradation of the examined patients was divided into 3 groups: average age 44-59 (main group) and comparison groups: elderly (60-74) and senile (75-90) years. The systematization of patients was carried out in accordance with the classification of vascular lesions of the brain E.V. Schmidt (1975) in a modified version. Moreover, the social and living conditions of all the subjects were satisfactory.

The average age of men is 65.3 ± 7.63 years, women - 76.3 ± 6.17 years.

In the group from 60 to 90 years old, pensioners were found in 95.4%, of which 53 people (30.6%) had a disability due to cardiovascular diseases. There are only 8 people working among them (4.6%; 8/173). Interestingly, 66 patients (24 men and 42 women) had a recurrent stroke (38.7%).

The exclusion criteria were oncological and hematological diseases, severe renal and hepatic insufficiency. When studying the age indicators of acute ischemic stroke, very interesting numerical indicators were revealed among the main or middle-aged and comparison groups, i.e. elderly and old patients.

The results of the conducted studies showed that out of 173 examined 59 (34.1%) were of average age, i.e. from 44 to 59 years, 93 people (53.8%) aged 60 to 74 years and



only 21 (12.1%) patients were aged 75-90 years. Their sexual distribution also presented a very interesting picture. Thus, men in the quantitative aspect significantly prevailed in general and made up 100 people out of 173 of all examined, i.e. 57.8%, and women 73 patients, respectively – 42.2%. It should be noted that when studying among age subgroups in the average (61.0%) and elderly (62.4%) age, there was a significant prevalence of men ($P<0.05$), whereas in old age the opposite picture was observed, the male sex was 2.5 times less common (28.6% vs. 71.4%; $P<0.05$). Consequently, the observed clinical picture of OMI in the age-sex aspect allowed us to identify certain features expressed in the prevalence of stroke in males as an average (44-59 years) so it is in the elderly (60-74 years old), and in the senile (75-90 years old) in women.

Thus, in a comparative study in the sexual aspect, there was a clear tendency for stroke to prevail among men in general and especially in middle and old age. Of course, this situation requires further targeted scientific research and studies, taking into account the characteristics of the male body and the connection between the formation of stroke, since it is in the middle or pre-retirement age, or in other words, in the most able-bodied and highly qualified age and bringing the country's economy the lion's share of the profits of the population, that a greater number of strokes prevail. The preservation of the health of this highly qualified contingent of people in a certain profession is of extremely important not only medical, but also socio-economic importance. A more in-depth and thorough analysis of the statistical indicators of the examined patients in the age-sex aspect revealed a number of interesting numerical indicators in the development of stroke. Thus, in the main group aged 44-59 years, men made up 36 (61.0%), while women made up 23 (39%), i.e. the difference was 22% and 13 people. In the age group of 60-74 years, men made up 58 people in percentage terms 62.4% and 35 women (37.6%) with a difference of 23 people (24.8%). As can be seen from the presented factual statistical material, men also significantly and statistically significantly prevailed in the group of 60-74 years compared to women. The most interesting indicators are in the group of 75-90 years. In this group, 21 people were observed, of which there were significantly fewer men, i.e. there are only 6 (28.6%), and 15 women (71.4%), indicating a noticeable predominance of the female sex among patients with acute cerebral stroke. Consequently, acute stroke develops more often among men in middle and old age.

Thus, based on the actual clinical material we have collected, we can see a significant and noticeable difference between the digital indicators in three age groups, i.e. among the middle, elderly and senile ages. Among the 173 patients with acute cerebral circulatory disorders of ischemic type collected and subjected to clinical analysis, the



largest number were middle-aged and elderly patients. Both on average and in old age, males significantly prevailed, when in the senile age group the largest number were female patients.

Results and Discussions

The analysis of literature sources devoted to acute disorders of cerebral circulation also emphasize the prevalence of this disease among elderly and middle-aged people, and their gender difference is clearly aimed at the highest frequency of detection in the above two groups. Similar data are provided by other authors [6,9]. However, in our opinion, the digital indicators we have identified, i.e. the predominance of AI in the main study group and in the elderly in men, apparently, is explained by the predominance of risk factors in the form of smoking (35.8%), alcoholism, combined factors in men aged 42-60 years ($p<0.05$) and an increase in the number of elderly women in the social structure of the population, smoothing gender differences due to the increase in combined risk factors in elderly and senile women ($p<0.05$). The risk of developing AI in elderly women may be associated with a drop in estrogen levels since menopause. In elderly patients, hypodynamia, overweight, dyslipidemia prevailed ($p<0.05$) in the absence of clear gender differences. Data from other authors indicate that in the presence of three out of five risk factors, the probability of stroke increases by 8 times [6,12], and the combination of more than three risk factors is significantly more common in elderly patients (57.4%), compared with patients aged 44-59 years (37.9%).

To further clarify the reasons for the prevalence of AI in middle-aged and elderly men, against the background of a significantly lower frequency of detection in women, we decided to study the existing background diseases that directly led to the formation of stroke. Thus, in patients of the main group, i.e. middle-aged (44-59 years), the predominance of arterial hypertension (90.5%), the presence of atherosclerosis (87.4%), cardiac arrhythmias and rheumatism (45.3 and 47.4%, respectively), diabetes mellitus (23.2%) was revealed in the structure of background diseases. Transient ischemic attacks (TIA) and ischemic heart disease (CHD) in persons aged 44-59 years occurred in 18.9% of cases. There was a significant prevalence of atherosclerosis, arterial hypertension, coronary heart disease, TIA, rheumatism in men ($p<0.05$), and diabetes mellitus and cardiac arrhythmias in women ($p<0.05$).

With age, the percentage of arterial hypertension increased due to an increase in the proportion of atherosclerosis ($p<0.05$), the proportion of coronary heart disease, TIA and cardiac arrhythmias increased. There was a leveling of gender differences in the structure of background diseases due to an increase in the proportion of





atherosclerosis in women ($p<0.05$), and diabetes mellitus in senile men ($p<0.05$). At the same time, the prevalence of the specific weight of coronary heart disease and TIA in the structure of background diseases remained in elderly patients ($p<0.05$). Analyzing the background diseases of acute cerebral strokes, it was necessary to delve deeper into some digital indicators for comparison with acute strokes of indicators of pre-stroke cerebrovascular diseases, in particular dyscirculatory encephalopathy or chronic cerebral ischemia.

The average age in the comparison group was 59.8 ± 0.67 years. Males made up 40.4% and females 59.6%.

A comparative analysis of this group of examined patients showed the predominance of the nosology of DCE in the middle-aged group (51.9%), and in the elderly group relatively less (42.3%) than the average age, but significantly different from those of senile (5.8%).

Consequently, DCE is formed mainly in middle and old age, and in old age it is more expressed by the development of complications in the form of acute stroke. When studying these indicators in the sexual aspect in middle age, it was observed in men at 42.9% and in women at 81.8%, in elderly men at 47.6% and in women at 54.5%, and finally in senile men at 9.5% and women at 4.5%.

Conclusion

Thus, pre-stroke changes in the vessels of extra- and intracranial vessels, respectively, focal changes in the medulla in DCE forms the background and is the main cause of the development of acute cerebral circulatory disorders in middle and old age, especially in men. It is timely targeted therapy of chronic brain ischemia in the elderly, but especially on average (44-65 years) age is the basis for the prevention of acute cerebral strokes, the contingent of the most able-bodied and bringing enormous benefits to the country's economy.

References

1. B.S. Vilensky. Stroke: prevention, diagnosis and treatment. St. Petersburg, 2002. pp. 124-151.
2. M. M. Asadullaev, F. S. Saidvaliev, F. K. Shermukhamedova, J. K. Rizvonov, N. M. Vakhabova (2012). Evaluation of the multimodal effect of cytoflavin in acute cerebral stroke that developed against the background of metabolic syndrome. Journal of Neurology and Psychiatry. SS Korsakov, 112(10), 24-27.





3. M.M.Asadullaev, G.S.Rakhimbayeva, N.M. Vakhabova, S.A.Zhangirov, (2021). The frequency of the main neurological symptoms in ischemic stroke among elderly patients. Zbirnik naukovih prats SCIENTIA
4. M.M.Asadullaev, G.S.Rakhimbayeva, N.M. Vakhabova, Sh.A.Zhangirov, (2021). Shtkir ischemic stroke rivozhlanishdagi pathogenetic mechanism. Zbirnik naukovikh prats SCIENTIA
5. N.M. Vakhabova, R. B. Azizova, N. N. Abdullayeva.(2019). Gender characteristics of risk factors and background diseases in different variants of ischemic stroke in elderly and senile people.
6. N.M. Vakhabova.(2021). The structure of clinical and neurological symptoms in acute cerebral strokes in men and women in the elderly and senile age. Journal of Neurology and Neurosurgical Research 2(3).
7. N.M. Vakhabova.(2021).The specific effect of hyperhomocysteinemia on the occurrence of ischemic stroke of the brain.Journal of Neurology and Neurosurgical Research.Topical issues of neurology.Bukhara, October 20-21, 2021
8. N.V.Vereshchagin. Heterogeneity of stroke:a view from the position of a clinician. Neuropathol Journal.and a psychiatrist.-2003.-No.9-pp.23-26
9. A.Umarov, N.Vakhabova, A.Prokhorova, , &M.Narzikulova. (2016). PS-82 GENDER FEATURES OF THE RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM (RAAS) IN PATIENTS WITH ARTERIAL HYPERTENSION IN UZBEKISTAN. *Journal of Hypertension*, 34, e497.
10. A. M. Makhmudovich, R. G.Sattarovna, V. N.Maksudovna, ,&A. K. Maksudovich. (2020). The Application Of Preparation Mavix In The Complex Treatment Of Ischemic Stroke In The Elderly Age. *The American Journal of Medical Sciences and Pharmaceutical Research*, 2(12), 55-63.
11. A.Umarov, A. Prokhorova,G.Rakhimbaeva, &N. Vakhabova.(2016, January). Stroke incidence and association with risk factors in women in Uzbekistan. In *CEREBROVASCULAR DISEASES* (Vol. 41, pp. 212-212). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.
12. A. M. Makhmudovich, R. G. Sattarovna,V. N. Maksudovna, &J. S.Azamatovich,. (2021). Hyperhomocysteinemia And Pathogenetic Mechanisms Of Ischemic Stroke. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(02), 66-76.
13. A.Umarov, &N.Vakhabova,. (2017, January). Hormonal status in patients with acute ischemic stroke in uzbekistan-cortisol and insulin-like growth factor-1 igf.



In *CEREBROVASCULAR DISEASES* (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

14. A.Umarov, &N.Vakhabova. (2017, January). Hormonal status in patients with ischemic stroke in uzbekistan-cortisol, estradiol and testosteron. In *CEREBROVASCULAR DISEASES* (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.
15. A.Umarov, N.Vakhabova, M. Asadullaev.(2021).Gender characteristics of the main arteries of the head. *Journal of the Neurological Sciences* 429,119645,2021
16. A.Umarov, N.Vakhabova, G.Rakhimbaeva, M.Asadullaev. (2021).The Gender
17. features ahd its frequency. *Journal of the Neurological Sciences* 429,119646,2021
18. D.Akramova, G.Rakhimbaeva, N.Vakhabova,M. Narzikulova. (2017, January). The frequency of ischemic stroke depending on the season and it's gender features. In *CEREBROVASCULAR DISEASES* (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.
19. M. M.Asadullaev,G. S.Rakhimbaeva,N. M.Vakhabova, H. M.Asadullaev, F. M. Mirzaakhmedov, O.Q.Saidnosirov. //Gender Features of Neurological Manifestations in Ischemic Stroke-International Journal Of Pharmaceutical Research
20. M.M. Asadullaev, F.S.Saidvaliev, F.K., Shermukhamedova Zh.K.Rizvonov, N.M.Vakhabova. (2012).Assessment of multimodal effect of cytoflavin in the acute brain stroke in patients with metabolic syndrome.*Zhurnal nevrologii i psichiatrii imeni SS Korsakova*,112(10),24-27
21. M.M.Asadullaev, N.M.Vakhabova., &H.M. Asadullaev. (2020). Risk Factors and Background Diseases in Different Variants of Ischemic Stroke in the Elderly and Senile Age. *International Journal on Orange Technologies*, 2(10), 86-88.
22. M.Ergasheva, &N.Vakhabova, (2019). New gender-influenced stroke study: Cognitive manifestations in acute ischemic stroke in Uzbekistan. *Journal of the Neurological Sciences*, 405, 115.
23. M.Ergasheva, N.Vakhabova, &G.Rakhimbaeva. (2019). Gender, aging and background diseases influence on the new neuronosological structure of acute ischemic stroke in Uzbekistan. *Journal of the Neurological Sciences*, 405, 115.
24. N.Tolibova., N. Vakhabova., U. Shirasava. (2017). Gender differences in stroke subtypes, severity, risk factors, and outcomes amont elderly patients with acute ischemic stroke among Uzbek population. *CEREBROVASCULAR DISEASES* 43
25. N.M. Vakhabova, G.S.Rakhimbaeva,M.M. Asadullaev. (2021). Clinical and Neurological Symptoms in Acute Brain Stroke from Gender Dymorphism and



Age Features. International Journal of Multidisiplinary Research And Analysis.ISSN:2643-9840,Volume 04 Issue 10 october .P. 1406-1410

26. N.Tolibova, &N.Vakhabova. (2017). Gender differences in stroke subtypes, severity, risk factors, and outcomes among elderly patients with acute ischemic stroke in Uzbekistan. *Journal of the Neurological Sciences*, 381, 377.
27. N.Tolibova, &N.Vakhabova.(2017). Stroke incidence and association with risk factors in women in Uzbekistan. *Journal of the Neurological Sciences*, 381, 377.
28. N.Tolibova, &N.Vakhabova.(2017, January). Homocysteine levels and functional outcome in patients with ischemic stroke in Uzbekistan. In *CEREBROVASCULAR DISEASES* (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.
29. Sundseth A., Faiz K.W., Ronning O.M. Factors Related to Knowledge of Stroke Symptoms and RiskFactors in a Norwegian Stroke Population. //J Stroke Cerebrovasc Dis. - 2014 May 6. – vol. 14. - S.1052-3057.
30. V. N. Maksudovna. (2016). Indirect influence of hormonal status on the development of ischemic insult and its gender peculiarities. *European science review*, (9-10).
31. U.Makhmudova,&N.Vakhabova, (2019). Gender dependent neuropsychological manifestations study in patients with acute ischemic stroke in Uzbekistan. *Journal of the Neurological Sciences*,405, 118-119.
32. U. Makhmudova, G.Rakhimbaeva, &N. Vakhabova, (2019). New approach of risk factors and background diseases role in acute ischemic stroke in elderly and senile-aged patients in Uzbekistan. *Journal of the Neurological Sciences*, 405, 118.
33. Wolfe C. Incidence of Stroke in Europe at the Beginning of the 21st Century. // The European Registers of Stroke (EROS) Investigators. *Stroke*. – 2009. - vol.40. – P.1557-1562.

