UDC 612.08.002-15.616.07-12

TO ACHIEVE THE GOAL OF THE STUDY AND TO SOLVE THE SET TASKS, GENERAL CLINICAL, LABORATORY AND INSTRUMENTAL RESEARCH METHODS WERE USED

Xodjiyeva D.T., Shodmanova S.K.

Bukhara State Medical Institute

✓ ***Resume***

Although the risk factors for ischemic stroke, the manifestations of cardio cerebral and cerebrocardial syndromes, have not been adequately studied, neurologists and cardiologists cannot describe the exact stage of the disease based on available diagnostic programs, our approach is to determine disease prognosis and evaluate its impact on treatment stages.

Keywords: Stroke, heart attack, atherosclerosis of the arteries, cerebrocardial syndrome, algorithm.

ЎТКИР ИШЕМИК ИНСУЛЬТНИ БАҲОЛАШДА УМУМИЙ КЛИНИК, ЛАБОРАТОР ВА ИНСТРУМЕНТАЛ ТАДҚИҚОТ УСУЛЛАРИДАН ФОЙДАЛАНИШ

Ходжиева Д.Т., Шодманова С.К.

Бухоро давлат тиббиёт институти

✓ ***Резюме***

Ишемик инсулт хавф омиллари, кардиоцеребрал ва цереброкардиал синдромларнинг намоён бўлишининг етарли ўрганилганига қарамай, мавжуд бўлган ташхислаш дастурлари асосида невролог ва кардиолог шифокорлар касалликнинг аниқ босқичига тавсиф беролмайди, бизнинг ёндашувимиз тадқиқот усулларидан фойдаланиш давомида касаллик прогнозини аниқлаш ва уни даволаш босқичларида таъсирини баҳолашдан иборат.

Калит сўзлари: Инсулт, инфаркт хуружи, артерияларининг атеросклерози, цереброкардиял синдром, алгоритм.

ИСПОЛЬЗОВАНИЕ ОБЩИХ КЛИНИЧЕСКИХ, ЛАБОРАТОРНЫХ И ИНСТРУМЕНТАЛЬНЫХ МЕТОДОВ ИССЛЕДОВАНИЙ ПРИ ОЦЕНКЕ ОСТРОГО ИШЕМИЧЕСКОГО ИНСУЛЬТА

Ходжиева Д.Т., Шодманова С.К.

Бухарский государственный медицинский институт

✓ ***Резюме***

Несмотря на достаточное изучение факторов риска ишемического инсульта, проявлений кардиоцеребрального и цереброкардиального синдромов, на основании имеющихся диагностических программ врачи-неврологи и кардиологи не могут дать характеристику точной стадии заболевания, наш подход основан на использовании методов исследования для определения прогноза заболевания и его влияния на стадии лечения.

Ключевые слова: инсульт, инфаркт, атеросклероз артерий, цереброкардиального синдром, алгоритм.

Relevance

According to the World Health Organization, more than 300 different risk factors for stroke and ischemic heart disease have been identified [1]. Studies show that people with close family members have the highest risk in people with this disease [4]. If a parent has had a stroke before the age of 65, the risk of stroke is 3 times higher, and there is evidence that the risk of stroke being "passed" from mother to daughter is higher than that of a boy [3].

Genetic research over the past decade has identified certain genotypes and gene mutations that increase the risk of developing stroke and heart attack in the blood coagulation system [5].

The risk of developing a stroke and myocardial infarction (MI) increases with age. Among the population under the age of 60, stroke was reported in only one-third of the population, while two-thirds of the IBD was diagnosed after the age of 60 [6]. The risk of stroke doubles every 10 years after the age of 55. [12].

Currently, there is an increase in stroke among the able-bodied population under the age of 64. [8]. At the beginning of this millennium, comparative pathomorphological studies conducted under the WHO program showed that the development of atherosclerosis among Russian citizens is more severe among young people and causes strokes and myocardial infarction among the population aged 50-55 years [8]. Gender differences in the risk of developing stroke and MI have been identified [3.]. Framingham studies have shown that people under the age of 40 are more likely to develop ischemic heart disease in men (48.0%) than women (31.0%) [12]. In the general population, men aged 30–69 years have a higher risk of stroke [7]. Mortality from cardiovascular disease is higher in men, especially among able-bodied men, than in women. Men are 3-4 times more prone to MI than women [9].

However, MI has been one of the leading causes of death in women of reproductive age in recent decades [10]. There is evidence that the mortality rate in hospitals with MI in women is 2.5 times higher than in men [9].

Cardiologists have determined the age at which the risk of developing cardiovascular accidents is: for women - 65 years, and for men - 55 years [11.].

Analysis of cardiac risk factors for ischemic stroke (II) showed that patients with MI were much older than patients without MI, women with a history of MI were older than men, and patients with arterial hypertension (AG) and II were older than the average age. found to be much higher than [10

One of the major reversible risk factors for the development of BMI and MI is arterial hypertension (AH). A direct correlation was found between the risk of vascular accidents and blood pressure levels: blood pressure was 115/75 mm Hg. is accompanied by an increase in the overall risk of stroke and heart disease at the same time. Blood pressure 160/95 mm Hg. when the blood pressure exceeds 140/90 mm Hg. Compared with those below, the risk of stroke increases by about 4 times, and if the blood pressure is 200/115 mm s.u. The risk of stroke increases by 10 times. A decrease in high blood pressure reduces the absolute risk of stroke by 1.04% and the relative risk by 38.0% over 5 years [16.].

The results of a meta-analysis of 7 prospective studies conducted worldwide showed that the relative risk of developing BMI increased with increasing blood pressure; data from 9 other prospective studies revealed a directly proportional relationship between blood pressure and the frequency of coronary heart disease (CHD). These studies showed that diastolic blood pressure was 5; 7.5 and 10 mm s.u. , leading to a 34, 46, and 56% reduction in the risk of developing IUCN, respectively, and a 21, 29, and 37% reduction in IUI risk, respectively, i.e., AG has a greater risk of developing IUCN than IUCA [17].

This is also evidenced by the development of hypertensive crisis complications identified by scientists, in which case the rate of development of BMI is the first (in 67%), MI (in 16.0%) in terms of frequency of development. Among circulatory diseases in Russia, diseases associated with high blood pressure rank first: 7801.4 cases per 100 thousand of the adult population. However, in Russia, the rate of adherence to the treatment regimen among the population in the treatment of AG is very low [12.]. At the beginning of the new millennium, this figure, i.e. regular blood pressure control, does not exceed 9-16%, while in the US, Germany and France the figure is much higher - 35.7% [10].

In small arteries of the brain, AG develops fibrinoid necrosis and lipogyalinosis, which may directly contribute to the development of BMQAOB, while in medium and large caliber, extra and intracranial arteries, AG leads to the onset of the atherosclerotic process [3.].

Atherosclerosis of the cerebral and coronary arteries is a major risk factor for the development of myocardial infarction and stroke. Attitudes toward atherosclerosis are changing with the emergence of new scientific facts, as reflected in the following changes in MKB-X 125.0 Atherosclerotic cardiovascular disease; 125.1 Atherosclerotic heart disease [13].

In asymptomatic atherosclerosis of the carotid arteries, the risk of developing a stroke is about 2% per year. If vascular stenosis is greater than 70% and there is a history of TIA, the risk is 13% per year. Underlying hyperlipidemia and hypercholesterolemia underlying atherosclerosis have been studied more extensively by cardiologists. High cholesterol levels in men under the age of 40 are associated with an increased risk of developing UIC later. Decreases in cholesterol and low-density lipoprotein (PZLP) have been shown to reduce the risk of death from cardiovascular disease by 42.0% and the development of stroke by 62.0% [4.]. According to a large-scale international study by INTERHEART, the leading predictor of MI development (regardless of age and gender, ethnicity) is a violation of the ratio between atherogenic and antiaterogenic lipoproteins [9.].

At present, the following are recommended in the fight against hyperlipidemia: adherence to a healthy lifestyle, increased physical activity, smoking cessation and cessation of alcohol consumption, adherence to diet, drug treatment and use of vascular surgery. It has been found that alcohol consumption reduces the risk of developing atherothrombosis, but at the same time increases the likelihood of developing hemorrhagic stroke [11]. Quitting smoking will reduce the risk of BMQAOB after 2-4 years. Smokers are twice as likely to develop MI and stroke as non-smokers.

The apparent atherosclerotic process in the main arteries (UN) leads to a dependence of cerebral circulation on central hemodynamics, especially in the disruption of autoregulatory (self-regulatory) processes of cerebral blood flow. In such cases, orthostasis, a decrease in heart rate (OF), cardiac arrhythmia, a sharp decrease in blood pressure on the background of MI, the emergence of an ischemic lesion in the brain and its enlargement.

With an increased risk of stroke due to heart disease, cardiogenic factors include embolism with 30 or more potential cardiac sources in the first place. Stein LK, Kornspun A, Erdman J, Dhamoon MS. According to the classification (2020), they are divided into three main groups: heart valve injury, cardiac chamber injury, and paradoxical types of cardioembolism. Another of the most important risk factors posed by the heart is ventricular fibrillation (BF), in which case the risk of stroke increases by 3-4 times. After the age of 55, the frequency of HA doubles every ten years of life [17.].

The purpose of the study: To determine the risk factors and clinical-functional features of the development of acute ischemic stroke in patients with acute myocardial infarction.

Research methods and techniques

This study is based on an analysis of the results of a comprehensive clinical trial of 142 patients. The work was carried out on the basis of the Bukhara branch of the Republican Scientific Center of Emergency Medicine. Patients were selected for 5 years.

The selection criteria were: 1) patients with acute MI with acute II (main group - AG); 2) Patients with non-IM II (control group - NG).

The complex clinical examination used formatted documents with detailed presentation of neurological, laboratory, ultrasound and neuroimaging methods, as well as complaints, anamnestic data, subjective and objective symptoms of the disease, data from paraclinical studies.

Result and discussion

Of the 142 patients examined, 102 patients with AG II and IM, mean age 72.3 ± 5.66 years, 40 patients with NI II without NI, mean age 70.8 ± 6.42 years (2.1 -table).

Criteria for inclusion in NG: 1) II without myocardial infarction; 2) subtypes of II - according to the diagnostic series of AG; 3) Patients over 60 years of age - corresponds to the average age of patients with AG.

Among those selected, 82 were women and 60 were men. 58 women (56.86%) and 44 men (43.14%) were observed in AG. The average age of men was 64.8 ± 4.57 years, and that of

women was 75.8 ± 5.36 years. The mean ages of men and women in NG and AG were comparable: 64.7 ± 5.32 years for men and 72.3 ± 5.24 years for women, respectively, in NG.

The social and living conditions of all control patients were satisfactory. In AG, retirees predominated (96.08%), 30 people (29.41%) were disabled due to cardiovascular disease, and 4 patients (3.92%) were working patients. In NG, the social composition corresponded to AG: 39 retirees (97.5%), 14 disabled (35.0%) and 1 busy (2.50%).

In 28 patients with AG (27.45%), the stroke was recurrent. In NG, recurrent stroke occurred in 15 patients (37.5%).

There was no significant difference in stroke lateralization in patients monitored in AG: 47.06% left hemisphere, 45.1% right hemisphere, and 7.84% of patients had a stroke in the cerebral column.

Localization of ischemic stroke in patients with arterial hypertension and NG

Group	Number of cases					
	Left hemisphere		Right hemisphere		VBH da II (brain column)	
	Abs.	%	Abs.	%	Abs.	%
AG (n = 102)	48	47,06	46	45,10	8	7,84%
NG (n = 40)	19	47,50	18	45,00	3	7,50

In most cases, KEI was diagnosed in AG patients - 72 patients (70.60%). II hemorrhagic transformation was observed in 9 patients (12.50%) with KEI. The second most common type of stroke in AG was GDI-12 (11.7%), which included patients with signs of decreased central hemodynamic parameters (low blood pressure, bradycardia), 8 patients (7.8%) were diagnosed with AT stroke, and the third with LI. in place - in 10 patients (9.8%).

All patients with AG were diagnosed with MI. In most cases, this occurred simultaneously with II, but at the same time the time of diagnosis of MI and II was different: in 43 patients MI stroke was detected when taken simultaneously (42.16%), in 18 patients (17.64%), stroke After the diagnosis was made the day after the myocardial infarction or 2-3 days later, in 41 cases (40.20%) myocardial infarction was detected on days 3-14 of the stroke (Figure 2.2). Accordingly, we identified three subgroups: cardiocerebral (CTs) (diagnosed before MI II), cerebrocardial (TsK) (preceded by MI II), and simultaneous development of II and MI diagnosed during admission (QP).

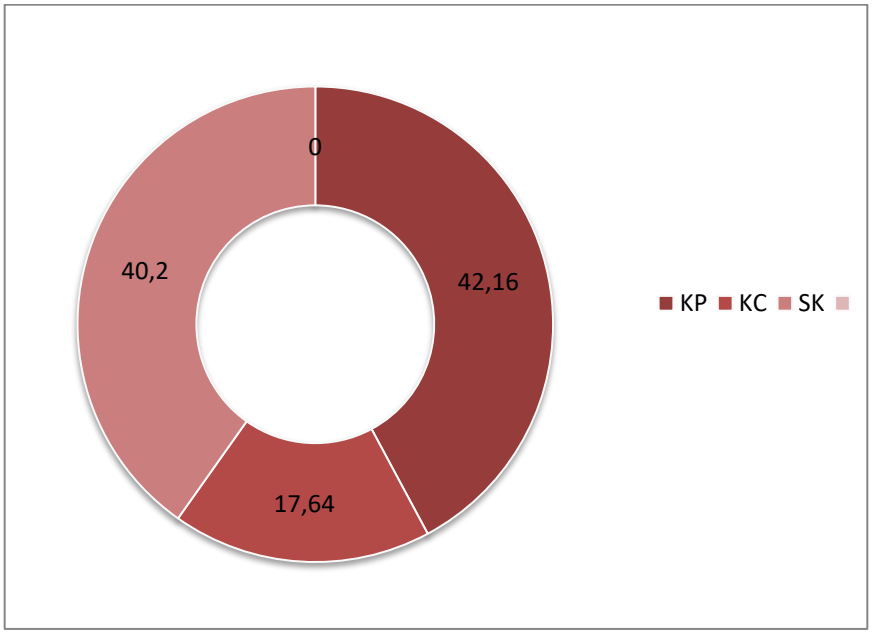

Figure 1. Small groups of subjects (%) according to the duration of diagnosis II and MI

The majority of patients had Q-toothed MI - 78 cases (76.47%). Q- toothless MI was detected in 24 patients (23.53%). For 45 (44.12%) patients, this was a recurrent infarction.

Mortality was 74 cases (72.55%), 53 patients had Q-tooth (71.62%), and the remaining 21 patients had Q-toothless MI (28.38%).

The degree of unconsciousness in the patients in the study was assessed using the Glasgow Coma Scale (GCS). In this study, three indicators were evaluated - speech disorder, pain response, and eye opening. Each response type was evaluated independently of the other two.

The sum of the three responses determined the depth of the disturbances. The degree of coma on the Glasgow scale varies: 15 - at the point of consciousness; 13-14 - numbness; 9-12 - sopor; 4-8 - coma; (8 - light, 7-6 - medium, 4-6 - heavy); 3 - brain death (Appendix 2).

After II, the degree of disability was studied using the Rankin scale [13.].

The Rivermead mobility index was also used. The value of the Rivermead mobility index corresponds to the score given to a question that the physician can answer positively about the patient. The index value can range from 0 (inability to perform any voluntary movements independently) to 15 (ability to run 10 meters). All patients received advice from a therapist and cardiologist. YuIK was detected on the basis of ECG and transthoracic echocardiography. Chronic heart failure (CHF) is diagnosed according to the criteria of the national recommendations of the Society of Experts on Heart Failure. [11.].

The following methods were used to diagnose stroke and IM in accordance with the patient management standard: total and biochemical blood test (UBT), blood aspartate aminotransferase (AST), alanine aminotransferase (ALT), lactate dehydrogenase (LDG), creatine phosphokinase (mFK), determine the amount. Clinical and biochemical blood tests were performed on Mindray BC 5800 (China) and Hu-mastar-600 (Germany) devices. Blood coagulation analysis was performed on an Autoclot device (Spain), in which indicators such as blood clotting time, MNO, prothrombin index, AChTVs were checked.

Conclusion

The analysis by age and sex of the patients examined in the study showed that the combination of stroke and myocardial infarction was more common in women over 70 years of age. Men suffer relatively less from this joint pathology, and their average age is 10 years less than the average age of women. History of myocardial infarction has been found to be a risk factor for the development of a combination of myocardial infarction and stroke in both men and women.

LIST OF REFERENCES:

1. Andersen K.K., Olsen T.S. Reduced poststroke mortality in patients with stroke and atrial fibrillation treated with anticoagulants. Results from a Danish quality-control registry of 22 179 patients with ischemic stroke // Stroke. - 2017. - Vol. 38. - P. 259-263.
2. Shamalov N.A. Cryptogenic stroke / N.A. Shamalov, M.A. Kustova // Neurology, neuropsychiatry, psychosomatics. - 2014. - Special Issue 2. - pp. 42-49.
3. Shandalin V.A., Fonyakin A.V., Geraskina L.A. Heart rate variability and cardiac disorders in the post-stroke period (prospective observation) // Materials of the X All-Russian Congress of Neurologists
4. Adams H.P. et al. Classification of subtype of acute ischemic stroke. Definitions for use in a multicenter clinical trial. TOAST. Trial of Org 10172 in Acute Stroke Treatment // Stroke. - 1993. - Vol. 24, № 1. - P. 35-41.
5. Bots M.L. Level of fibrinogen and risk of fatal and non-fatal stroke. EUROSTROKE: a collaborative study among research centres in Europe // J. Epidemiol Community Health. - 2002. - Feb., vol. 56, suppl. 1114-1118.;
6. Buono A, Gori T. No-reflow phenomenon in acute myocardial infarction: Relieve pressure from the procedure and focus attention to the patient. // Int J Cardiol Heart Vasc. -2019. - V.24. - P.: 104-117.
7. Chartrain AG, Kellner CP, Mocco J. Pre-hospital detection of acute ischemic stroke secondary to emergent large vessel occlusion: lessons learned from electrocardiogram and acute myocardial infarction. // J Neurointerv Surg. 2018 Jun;10(6):549-553. doi:

10.1136/neurintsurg-2017-013428. Epub 2018 Jan 3. PMID: 29298860.
8. Clinical Research Collaboration, Neurological Emergencies Treatment Trials Network, and the POINT Investigators. N Engl J Med. 2018 Jul 19; 379(3):215-225.
9. Colivicchi F. et al. Cardiac autonomic derangement and arrhythmias in right-sided stroke with insular involvement // Stroke. - 2014. - Vol. 35, № 9. - P. 2094-2098.
10. Elgendy IY, Mahmoud AN, Mansoor H, Mojadidi MK, Bavry AA. Evolution of acute ischemic stroke therapy from lysis to thrombectomy: Similar or different to acute myocardial infarction? // Int J Cardiol. 2016 Nov 1; 222: 441-447. doi: 10.1016/j.ijcard.2016.07.251. Epub 2016 Aug 1. PMID: 27505331.
11. Firmann M. The CoLaus study: a population-based study to investigate the epidemiology and genetic determinants of cardiovascular risk factors and metabolic syndrome // BMC. Cardiovasc. Disord. - 2008. - Vol. 17. - P. 8-16.
12. George M.G., Tong X., Bowman B.A. Prevalence of Cardiovascular Risk Factors and Strokes in Younger Adults // JAMA Neurology. 2017. Vol. 74 (6). P. 695-703.
13. Health 2020: the European policy for health and well-being. — WHO, World Health Report, 2020. — URL: httphttps://www.euro.who.int/en/about-us/regional-director/regional-directors-emeritus/dr-zsuzsanna-jakab,-2010-2019/health-2020-the-european-policy-for-health-and-well-being].
14. Khadzhieva D.T., Khaydarov N.K. Khaydarova D.K. Correction of asthenoneurotic syndrome by the energy corrector cytoflavin // Neurology. - Tashkent, 2013. - No.3. Pp.16-19.,
15. Khodzhieva D.T., Khaidarova D.K., Khaidarov N.K., Samadov A.U. Differentiated therapy in the acute period of ischemic stroke // Neurology - 2011. - No. 4. - p. 34.
16. Kijpaisalratana N, Chutinet A, Suwanwela NC. Hyperacute Simultaneous Cardiocerebral Infarction: Rescuing the Brain or the Heart First? // Front Neurol. 2017 Dec 7; 8:664. doi: 10.3389/fneur.2017.00664. PMID: 29270151; PMCID: PMC5725403.

Entered 09.11.2021