



CLINICAL MANIFESTATIONS, PREVENTION AND TREATMENT OF STROKE IN WOMEN

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Abstract: Stroke is an acute disorder of blood circulation in the brain, accompanied by tissue death and impaired function of the nervous system. Normally, brain tissues constantly receive sufficient nutrients and oxygen to maintain organ function. Stopping blood flow even for a few seconds can lead to damage to the organ, as neurons do not store the necessary components for metabolism. Stroke is a life threatening condition: depending on the area of blood flow disruption, the patient may experience mild impairment of brain function or massive tissue destruction followed by a vegetative state. Early symptoms of the disease include muscle weakness, speech impairment and facial asymmetry.

Key words: prevention, treatment, stroke, brain, women.

Introduction: Stroke is among the most dangerous neurological diseases. Acute disruption of blood flow in the brain most often occurs in men and women over 50 years of age, but risk factors for the disease can be identified at any age. When the first signs of stroke occur, it is necessary to seek emergency medical help as soon as possible, since irreversible changes in the brain can form within a few hours. To restore blood flow in the organ, doctors carry out resuscitation and therapeutic procedures. After the elimination of a life-threatening condition, treatment of the root cause of the disease is carried out, rehabilitation is prescribed.

Stroke is the predominant cause of disability of the population (3.2 per 1000 population) [2, 9]. According to the National Stroke Registry, 31% of stroke patients need external assistance for self-care, 20% cannot walk independently. Only

8% of surviving patients can return to their previous job. According to the data of epidemiological study of stroke by the method of territorial-population register, the incidence of stroke in 2010 was 3.27 cases per 1000 population, mortality - 0.96 per 1000 population. The ratio of ischaemic strokes to haemorrhagic strokes was 5 : 1. The mean age of stroke development was 66.7 years (63.7 years in men and 69.4 years in women). The absolute number of strokes in patients under 67 years of age is higher in men and higher in women at older ages [3,10]. By 2016, the incidence of stroke decreased to 2.85 per 1000 population (compared to 2009 by 30%), mortality was 0.4 per 1000 population (decreased by 220%). The incidence of recurrent stroke is 0.79 per 1,000 population. The proportion of ischaemic stroke among recurrent strokes is 87.5 per cent, and stroke of

unspecified aetiology is 4.6 per cent. The prevalence rate of recurrent stroke among all strokes is 25.5% [1,11]. According to population-based studies, the incidence of atherothrombotic MI is 16%, cardioembolic MI is 29%, lacunar MI is 16%, stroke due to rarer causes is 3%, and stroke of unknown etiology is 36% of cases. The risk of recurrent stroke within the first 30 days of illness is higher in atherothrombotic stroke compared with other pathogenetic variants of AI [22]. The incidence of malignant infarction in the SMA basin is about 3% of all cases of MI [4,13]. On average in the Russian Federation malignant infarction in the SMA basin develops in 15000 people every year. The incidence of malignant cerebellar infarction is about 0.5% of all AI cases [6,15]. On average, in the Russian Federation, malignant cerebellar infarction develops in about 2500 people each year. Traditionally, stroke was considered a disease occurring in the older age group, but the frequency of its detection in the young has been increasing since the 1980s [7,18]. This is due to the ubiquity and improvement of neuroimaging techniques, increased prevalence of cardiovascular risk factors, and increased use of illicit drugs. The incidence of stroke in patients younger than 45 years of age ranges from 3.4 to 11.3 per 100000 population per year [8,19]. The causes and risk factors for stroke in the young differ significantly from those found in elderly patients. Congenital and acquired heart disease, blood diseases, vasculopathies, hereditary diseases, and drug use are more commonly diagnosed in young patients. Arterial hypertension, smoking, diabetes mellitus, and hypercholesterolemia are more common in elderly patients, although these risk factors are also present in young patients [9, 20].

The following types of cerebral stroke are distinguished:

ischaemic stroke;

haemorrhagic stroke.

Stroke is equally dangerous for both men and women. In men it is more easily tolerated, but at the same time the risk of its development is much higher. In women, stroke is more severe and statistically more likely to lead to death, at any age. The percentage of morbidity, starting from

30 years of age, increases significantly. In recent years, it affects people at a younger age.

Causes of stroke

There are many external factors, diseases that contribute to the occurrence of stroke, they include: smoking and other bad habits;

excessive consumption of fatty, fried food, smoked meats, fast food;

low physical activity;

obesity and overweight;

high blood sugar levels;

high blood pressure and some other vascular and heart diseases;

disorders of the blood clotting system and, as a consequence, an increased tendency to thrombosis;

history of brain injury;

infectious-inflammatory and degenerative lesions of the brain;

constant stress;

severe intoxication;

hereditary predisposition;

advanced age.

Under the influence of these factors, there is the occurrence of any obstacle to blood flow in the vessels of the brain. Due to lack of oxygen and nutrients, brain cells die. Narrowing or blockage of vessels can occur due to an embolus (a piece of thrombus) or plaque on the wall of a large vessel (manifestations of atherosclerosis). This is how ischaemic stroke occurs. When for one reason or another there is a rupture of the intracerebral arteries, another type of stroke develops, which is called hemorrhagic. This form occurs in people who suffer from high blood pressure. That is why it is important to monitor the level of BP, in time and competently carry out its correction. It can also occur with ruptured aneurysms of cerebral vessels, blood pathologies with manifestations of hypocoagulation. Even with timely diagnosis and treatment, this form of stroke can lead to severe consequences.

Signs of stroke

Timely detection of stroke and its diagnosis in the early stages can save the life and health of a person, so it is very important to know and be able to recognise the first signs of stroke:

sharp, sudden sensory disturbance or motor weakness in one limb or on one half of the body (to identify this sign, ask the person to raise both arms evenly, if one arm "does not obey" or does not keep up with the other, it may indicate the development of a stroke);

Facial asymmetry (ask the person to smile, the smile will look lopsided, one side of the mouth corner drooping);

impaired speech and understanding of the words addressed to him/her (address the person, ask him/her to repeat a simple phrase);

visual disturbances, e.g. double vision;

impaired gait, balance, loss of consciousness (ask the person to walk a few metres in a straight line, shaky gait will be observed).

Symptoms of stroke

Clinical manifestations depend on the location of the centre where the stroke occurred, due to which the manifestations are very diverse: impaired movement of the legs and/or arms (paresis or complete paralysis);

sensory disturbances in various parts of the body;

Speech changes in the form of impaired articulation (dysarthria) or aphasia (impaired pronunciation and understanding of words);

Ataxia (the person's movements become uncoordinated), tremor (involuntary shaking of body parts);

visual pathology, such as blindness or diplopia (double vision);

psychological and behavioural changes;

difficulty swallowing;

urinary and defecation disorders;

disturbances in breathing and vascular tone;

increased intracranial pressure;

Depression of consciousness, in some cases may reach coma.

The consequences of a stroke can be very diverse. Some reduce the quality of life (paresis, tremor), others can be life-threatening (respiratory depression, violation of vascular tone).

Stroke diagnosis

In drawing up a treatment plan, planning and predicting rehabilitation, the diagnosis of stroke is of the greatest importance. At the stage of emergency first aid, the following measures are carried out: checking and correction of blood pressure and heart rate;

measuring oxygen saturation (oxygen saturation of the blood);

measurement of blood sugar levels;

assessment of consciousness using the Glasgow Coma Scale.

During hospitalisation: examination for various neurological symptoms;

laboratory blood tests;

ECG, cardiac ultrasound if there is a history of cardiac pathology;

Computed tomography (CT) and magnetic resonance imaging (MRI) of the brain are the main diagnostic measures;

lumbar puncture, e.g., when an infectious process or haemorrhagic stroke is suspected if CT scan results are negative;

electroencephalography (EEG) if seizure activity is suspected;

intracranial pressure measurement;

cerebral angiography, head and neck ultrasound to detect vessel occlusion and stenosis;

eye fundus examination;

head and neck angiography;

24-hour heart rhythm monitoring;

duplex scanning of head and neck vessels.

Stroke treatment

From the moment the first symptoms appear, hospitalisation should be carried out as soon as

possible. This is due to the fact that in the development of stroke there is a so-called "therapeutic window" (the period from the appearance of the first symptoms to irreversible morphological changes in the brain), which on average lasts 3-6 hours. It is important at the first symptoms of stroke to be able to provide first aid to a person who has had a stroke: call an ambulance;

lay the victim down so that his or her head is above the level of the body;

free the mouth from dentures, vomit;

unbutton compressive clothing, provide a supply of fresh air;

wait for the ambulance to arrive.

Before the final diagnosis is confirmed, the so-called basic therapy is carried out. It includes normalisation of heart function, blood pressure, if necessary prescribe diuretics, corticosteroids, correct blood pH. As soon as possible, it is necessary to restore the flow of nutrients and oxygen to the area of the brain, which was affected (in ischaemic stroke). For this purpose, drugs that promote the resorption of blood clots are used. The appointment of antiaggregants, antispasmodic drugs, neuroprotectors, drugs that improve the rheological properties of blood is indicated. In the diagnosis of haemorrhagic stroke, the basic therapy remains unchanged and consists of neurocytoprotection, in some cases surgical treatment may be recommended.

Rehabilitation in stroke

Patient rehabilitation measures begin immediately after stabilisation of vital signs and should have a multidisciplinary approach. In the recovery process, an important place is occupied by therapeutic exercise, courses of medical massage, physiotherapeutic procedures. In case of speech disorders, classes with a speech therapist are held. Psychological assistance to patients and their families is also important. In the case of limited mobility, occupational therapists work with the patient to help him or her adapt to the conditions of limited mobility. The process of recovery after a stroke takes place throughout the entire period of hospitalisation. In the second

stage of rehabilitation, if the patient has severe motor impairments or complications that limit self-care, he or she will be referred to specialised hospitals and centres. Those patients who can walk independently or with support are rehabilitated as outpatients in a polyclinic or sanatorium.

The complex of rehabilitation measures includes:

Physiotherapy;

Therapeutic exercise (LFK);

Massage;

mechanotherapy;

Consultation with a speech therapist;

Sessions with a psychologist.

Stroke prevention

In measures to prevent stroke, regular check-ups, consultation with the attending physician to identify and control risk factors are important. To preventive measures include: control of blood pressure;

moderate physical activity, walking;

Dispensary monitoring and preventive examinations;

avoidance of stressful conditions;

weight control;

healthy diet;

avoidance of smoking and other bad habits;

treatment of diseases that can provoke stroke.

Conclusions: Thus, when identifying risk factors, it is necessary to consult a specialist. The doctor will help minimise them and, accordingly, reduce the likelihood of developing the disease and its complications. This will increase the length and quality of your life.

Literature:

1. Ilkhomovna, K. M., Eriyigitovich, I. S., & Kadyrovich, K. N. (2020). Morphological Features of microvascular Tissue of the Brain at hemorrhagic stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 2(10), 53-59.

2. Kadyrovich, K. N., Erkinovich, S. K., & Ilhomovna, K. M. (2021). Microscopic Examination of Postcapillary Cerebral Venues in Hemorrhagic Stroke. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(08), 69-73.
3. Камалова, М. И., & Хайдаров, Н. К. (2020). Prevention and risk factors for brain infarction (literature review). *Журнал неврологии и нейрохирургических исследований*, 1(2).
4. Ismoilov, O. I., Murodkosimov, S. M., Kamalova, M. I., Turaev, A. Y., & Mahmudova, S. K. (2021). The Spread Of SARS-Cov-2 Coronavirus In Uzbekistan And Current Response Measures. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(03), 45-50.
5. Shomurodov, K., Khaidarov, N., & Kamalova, M. (2021). The formation and eruption of baby teeth in children. *Збірник наукових праць SCIENTIA*.
6. Khodjieva D. T., Khaydarova D. K., Khaydarov N. K. Complex evaluation of clinical and instrumental data for justification of optive treatment activites in patients with resistant forms of epilepsy //American Journal of Research. USA. – 2018. – №. 11-12. – С. 186-193.
7. Kamalova M. I., Khaidarov N. K., Islamov S. E. Pathomorphological Features of hemorrhagic brain strokes //Journal of Biomedicine and Practice. – 2020. – С. 101-105.
8. Khodjieva D. T. et al. Optimization of the diagnosis and treatment of early neurological complications in cardio embolic stroke //European Journal of Molecular & Clinical Medicine. – 2020. – Т. 7. – №. 07. – С. 2020.
9. Ходжаева Д. Т., Хайдарова Д. К., Хайдаров Н. К. Характеристика поражений проводящих путей при умеренно-когнитивных расстройствах на фоне хронической ишемии мозга //Евразийский Союз Ученых. – 2015. – №. 7-3 (16). – С. 97-98.
10. Ilkhomovna K. M., Kadyrovich K. N., Eriyigitovich I. S. Clinical and demographic quality of life for patients with ischemic stroke in Uzbekistan //ACADEMICIA: An International Multidisciplinary Research Journal. – 2020. – Т. 10. – №. 10. – С. 883-889.
11. Ходжиева Д. Т., Хайдаров Н. К., Хайдарова Д. К. Коррекция астеноневротического синдрома энергокорректором цитофлавином //Неврология.–Ташкент. – 2013. – №. 3. – С. 16-19.
12. Kamalova M., Khaidarov N. Assessment of quality of life in ischaemic stroke patient's //Збірник наукових праць Scientia. – 2021.
13. Ходжиева Д. Т., Хайдарова Д. К., Хайдаров Н. К. Биофизические основы возникновения синингомиелии: современные воззрения //Журнал неврологии и нейрохирургических исследований. – 2020. – Т. 1. – №. 3.
14. Ходжаева Д. Т., Хайдарова Д. К., Хайдаров Н. К. Совершенствование диагностической тактики постинсультных когнитивных расстройств //ORCID ID: 0000-0002-9309-3933 Масъул котиб Маматова Нодира Мухторовна–тиббиёт фанлари доктори, Тошкент давлат стоматология институти Фармакология кафедраси мудири. ORCID ID: 0000-0003-2396-4905. – 2019. – С. 80.
15. Kadirovna K. D., Kadirovich X. N., Tadjiyevna K. D. Clinical basis for the development of neuroprotective therapy in acute ischemic stroke //International Journal of Health Sciences. – 2022. – №. I. – С. 4177-4183.
16. Ходжиева Д. Т., Хайдаров Н. К. АСПЕКТ ПРОИСХОЖДЕНИЯ НЕВРОЛОГИЧЕСКИХ РАССТРОЙСТВ ПРИ БОЛЕЗНИ COVID 19 //ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2021. – №. SPECIAL 1.

17. Ihomovna K. M., Kadyrovich K. N., Eryigitovich I. S. Patient Demographics in Haemorrhagic and Ischaemic Stroke //Central Asian Journal of Medical and Natural Science. – 2021. – Т. 2. – №. 4. – С. 40-42.
18. Kamalova M. I., Khaidarov N. K., Islamov S. E. Pathomorphological Changes in Cerebral Vasculature in Ischaemic Stroke //JournalNX. – 2021. – Т. 7. – №. 03. – С. 60-66.
19. Камалова М. И., Исламов Ш. Э., Хайдаров Н. К. Современные Представления О Факторах Риска И Профилактики Инфаркта Головного Мозга (Обзор Литературы) //Журнал Неврологии И Нейрохирургических Исследований. – 2020. – Т. 1. – №. 3.
20. Камалова М. И., Хайдаров Н. К. ПРЕДУПРЕЖДЕНИЕ И ФАКТОРЫ РИСКА ИНФАРКТА ГОЛОВНОГО МОЗГА (Литературный обзор) //ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2020. – Т. 1. – №. 2
21. Хайдаров Н. К. ВСТРЕЧАЕМОСТЬ ЗАБОЛЕВАЕМОСТИ ИНСУЛЬТОМ В БУХАРСКОЙ ОБЛАСТИ //Актуальные проблемы экспериментальной и клинической медицины. – 2019. – С. 92-92.
22. Хайдаров Н. К., Тешаев Ш. Ж., Камалова М. И. RISK FACTORS AND MECHANISMS OF ONCOLOGY IN WOMEN (Literature review) //ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2023. – Т. 4. – №.