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Prevention of Repeated Ischemic Stroke

Djurabekova Aziza Taxiurovna¹, Mutalipova Mukaddas Axmatjonovna², Shomuradova Dilnoza Salimovna³, Xaminov Suxrob Sunnatovich⁴

¹Professor, Head of the Department of Neurology, Samarkand Medical Institute

²Master student of Neurology Department, Samarkand Medical Institute

³Candidate of Medical Science Assistant at the Department of Neurology Samarkand Medical Institute

⁴Master student of the Department of Neurology Samarkand Medical Institute

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Abstract: *The result of many scientific sources indicates that the risk of recurrent ischemic stroke (IS) lasts for five or six years. According to the WHO, the probability of this fact is within 10%, depending on demographic indicators (1, 5, 6). At the modern level of diagnostics, with the advent of neuroimaging, the emergence of foci of cerebral ischemia has been established in more than 50%. The presence of arterial hypertension is an independent predictor of recurrent stroke and, of course, blood pressure control reduces the risk of recurrent cerebral impairment. In addition, literature data trace the relationship between recurrent stroke depending on the subtype of the disease, gender tendency, and social level (2, 3).*

Key words: *scientific sources, cerebral ischemia, arterial hypertension, lipid metabolism.*

Accordingly, in addition to rehabilitation measures for the restoration of existing cerebral dysfunctions, the prevention of repeated ischemic strokes is of great interest to scientists and healthcare organizations, practitioners. The factor of modification of cardiovascular diseases is relevant and important, with strict account of the dosage of the drug load, especially when it concerns older people (5, 3, 4).

Target. To assess the results of the analysis of patients with IS and risk factors for recurrent stroke, with the implementation of preventive measures.

Material and research methods. The study was carried out on the basis of the neurology department of the 1-Clinic of Samarkand Medical Institute, and in dynamics, at the place of residence on an outpatient basis of the Samarkand polyclinics. The survey included 60 patients aged 49-79 years who had suffered an ischemic stroke for the period 2020-2021 and 15 relatively healthy patients with no history of acute cerebrovascular accidents of the same age. The criteria for inclusion in the study were the postponed IS in the carotid system, confirmation of stroke by neuroimaging and by specialists in the acute period, consent of patients and their relatives to the study. The diagnosis of the disease was formed according to the requirements of the international classification of the 10th revision. AI subtypes were based on

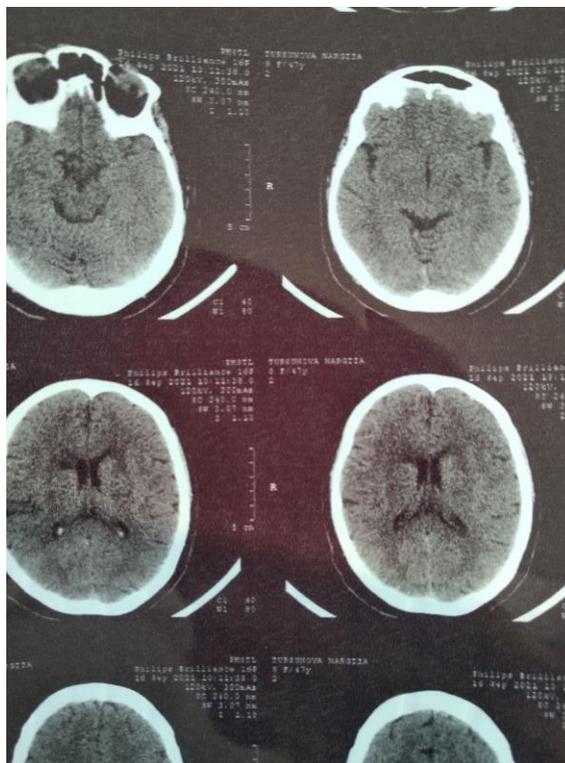
the TOAST criterion. All patients, in addition to the main neurologist, underwent a full examination of the somatic status. In addition to dynamic MRI examination, it was mandatory to control blood sugar and lipid metabolism of blood viscosity. Among the examined patients, the majority were men, 58%. Having studied the factors that led to them, the next stage of the examination in accordance with the set goal, a preventive algorithm was drawn up based on the optimization of treatment, for this, patients with IS were divided into categories who received almost the same type of therapy, but neuroprotective therapy was supplemented in one of the subgroups. The results obtained were statistically processed on an individual computer using the t-test and the Mann-Untney test, with a reliability of $p < 0.05$.

The result of purposeful collection of anamnesis for the study of risk factors for IS, showed among the examined patients in almost all arterial hypertension; acquired and congenital heart disease 18.8%. In addition, not a little important factor is the potentially modified risk of IS, impaired carbohydrate metabolism and lipid metabolism. An increase in blood sugar was noted in 19.2%, a disorder of lipid metabolism in 29.9%. It is important, in cases of identifying a risk factor, the length of the disease (the duration of the disease was aggravated by provocative patents to cerebral catastrophe), the level and severity of the disease (height of blood pressure) and its complications in the form of chronic cerebrovascular accident, lacunar heart attacks preceding IS. As expected, the pathology of cerebral disorders was higher in number than in those examined with moderate arterial hypertension ($p < 0.05$). The high risk group includes patients who do not regularly take (or generally ignore) the use of antihypertensive drugs. The assessment of the analysis of age parameters turned out to be characteristic, the lesion is more frequent, the risk factor is higher, the higher the age of the patients ($p < 0.05$), this category of age patients differs in the degree of concomitant somatic pathologies, a more difficult recovery period. The assessment of gender differences was, debatable, depended primarily on lifestyle and bad habits (smoking in men), hereditary predisposition, diet (fatty foods mainly for men), age-related metabolic signs (climacteric aspect in women), that is, this issue requires a separate study, but the presence of lipid metabolism data revealed an increased level in men than in women.

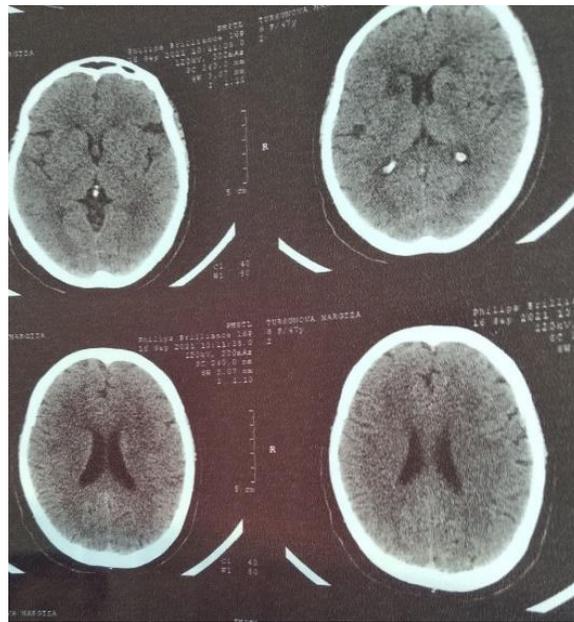
Anamnestic review also pointed out the peculiarity of complaints and neurological signs that must be taken into account as factors predisposing to acute cerebral impairment. The most frequent were instability when walking and standing (56%), tinnitus (especially when lying down) (36%), lack of dexterity in hands (often dropping objects) in 29.3% of cases. According to relatives, stiffness in conversation, decreased activity, slowness of gait, in 13.7% of cases. This study is based on the examination of patients who underwent IS, respectively, early focal symptoms (before IS disease) were analyzed using outpatient and inpatient records. The most common signs in all patients were changes in oculomotor disorders. Convergence is impaired in 71%, not bringing the eyeballs to the lateral sides in 24.3%, nystagmus (in some cases setting) in 40% of cases, slight asymmetry of the face (due to the smoothness of the nasolabial fold on either side) in 25, 5%, in 20.2% of cases, deviation of the tongue, the difference in tendon reflexes on the sides in 13.9% of cases, in 2 cases, pathological reflexes with rapid extinction.

The next stage of the examination, clarification of the subtypes of ischemic conflict of the brain. Lacunar infarction turned out to be the highest in frequency, this is natural, since early installation proved the background of arterial hypertension and an increase in blood glucose and lipids in the examined patients, in 38%. Atherothrombotic IS subtype was found in 19.8% of patients. Stenosing lesions of the arteries of the main line, of atherosclerotic genesis, are predominantly registered in the older generation and in men. A very low percentage fell on the cardioembolic subtype of stroke - 12%, the cause was heart disease (malformations), myocardial infarction, atrial fibrillation. Several patients combined a sufficiently large number of reasons, which made it difficult to establish any one subtype. In one patient, the subtype remained unspecified (it did not fit into the clinic's history, and vice versa). All patients underwent MRI

brain imaging. The predominance of foci of lacunar infarction was natural, the predominance of patients with arterial hypertension and, accordingly, the lacunar subtype of stroke. The lacunar nature of the disorders was mainly found in the white matter of the brain and in the periventricular level, it was noted in multiple and different sizes in 70% of cases. The incidence of leukoriosis was also quite high, within 75%. The dependence of the severity of damage to the brain structure on age, duration of arterial hypertension, complications of the underlying disease, additional pathological layers such as diabetes mellitus, changes in lipid metabolism, somatic chronic diseases ($p < 0.05$) turned out to be quite expected. A detailed study of the cause-and-effect risk factors for IS in the examined patients is necessary to compile an algorithm for preventive measures for repeated cerebral accidents. The basis of preventive measures includes the possibility of controlled changes, this is the fight against persistent arterial hypertension in combination of its complications in the vascular bed, control of blood viscosity, blood glucose. And no less important, the use of drugs of neurotrophic action, Gliatilin is recommended for such drugs. Gliatilin by its property controls and improves the transmission of nerve impulses in cholinergic neurons, affects neuroplasticity and increases neuroprotection, cerebral blood flow increases metabolism in the brain, activates the structure of the reticular formation, the storage capacity in the brain reaches its maximum limits. For this, the patients of the main group (patients with IS) were divided into patients who received traditional therapy, 28 patients recommended for the prevention of secondary strokes (antihypertensive, statins) and 32 patients who received this therapy. In addition, they received gliatilin at the beginning in the injectable form, then for a long time (6 months) in the drinking form. Thus, the indicators of the increase in the Bartel index from the initial in the group taking gliatilin showed 20% higher, $p < 0.05$. Repeated neuroimaging data in patients with traditional therapy revealed signs of internal hydrocephalus, small cystic signs in separate parts of the white matter, leukoriosis, which confirmed the progressive process of vascular genesis in the structure of the brain. At the same time, MRI performed in the group using the protective drug gliatilin showed a significant coincidence with the normative data, control subjects, without ischemic stroke.



Rice. 1. Patient A. 43 years old.



Rice. 1. Patient K., 52 years old.

Summing up the study, it should be noted that the factors leading to ischemic stroke, primarily chronic cerebrovascular accident against the background of persistent (discirculatory) arterial hypertension, with a duration of more than 6 years, with high blood pressure numbers, who did not regularly take antihypertensive drugs. The second factor is insufficient intake of antiplatelet drugs and lack of control of lipid metabolism. Within the framework of our study, the necessity of taking medications for replenishing neurological deficits was evidenced, taking into account the growing picture of the time distance from the acute period.

Thus, the use of gliatilin for at least 6 months is accompanied by a decrease in the severity of focal neurological deficit, as an additional therapy for the prevention of recurrent strokes.

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