

STROKE RISK FACTORS DEPENDING ON ARTERIAL HYPERTENSION INDICATORS

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According to the World Congress neurologists in total mortality structure, the proportion of the stroke averages 13% in developed Western countries economic and makes every third case associated with cardiovascular diseases (1, 3). Every fifth patient survives after stroke carries a second stroke in the flow and, the next 5 years (2, 4). Today, there are more than 50 million patients with cerebrovascular problems have been registered for the first time, and the treatment of such patients is estimated at tens of billions of dollars, which creates large economic losses for the state (5, 7). In this regard, the prevention and prevention of re-brain catastrophe is an urgent and significant issue. Given the fact that arterial hypertension is the first in the list of stroke risk factors, stabilization pressure level is much important component in the solution of the matter (6, 8). The very nature of changes in the vessels during the early stages in a long current arterial hypertension promotes adaptation pressure resistance, by changing the vascular lumen. And as soon as this ability is lost, the diameter of the vessels does not change, there is a breakdown of the cerebrovascular reserve and, as a result, an acute violation of cerebral circulation. Parallel disorders cardinal hemodynamics form a complex cardiovascular changes (4, 9). Accordingly, not only pressure control, but also heart diagnostics, is an integral part of stroke prevention. Thus, analysis of arterial hypertension, with detailed control of cerebrovascular reactivity, analysis of cardiovascular system allows to differentiate and give prognostic assessment of the probability of disturbances in the system of cerebral circulation.

Purpose. To study the state of cerebral hemodynamics in patients with arterial hypertension and a high risk of stroke.

Material and research methods. Survey of patients was conducted for the period 2019-2021 gg. in the department of cardiology, neurology and resuscitation of the separation of I 1-Clinic summit. Commonly examined was 60 people with hypertension, a control group of 20 people from among healthy. Men exceeded at the rate of 2: 1. The exclusion criteria were the following signs: heart defects, the presence of somatic diseases in the acute stage, endocrine diseases, patients with stroke. The average age is 50 ± 6 years. The degree of arterial hypertension (AH) and the risk of cardiovascular disorders were determined according to the criteria of the European recommendations (2015). Clinically neurologically studies I carried Referring to the classical scheme of the standard and estimate status scale Bortel (1965) (determination of the level of activity and efficiency of maintenance, the total score 100). Daily monitoring of blood pressure allowed to divide the main group on the risk level 1 group AG I degree (SBP 160, DBP to 100 mm Hg); Group 2 AH of the II degree (SBP up to 180, DBP up to 110 mm Hg); Group 3 AH III degree (SBP above 180, DBP above 110 mm Hg).

According to the tasks carried out by the patient ultrasound study duplex scanning of intracranial arteries and transcranial duplex scanning, on the basis of the obtained results was determined reactivity index (MFI). Echocardiography, taking into account the standard scheme, was performed in dynamics in all patients. Statistical processing of the obtained results was carried out using Student's criteria on an individual computer.

Research result. During the examination, patients are bringing a complaint of headache in 70% of cases, the main group. The question of the nature of the headache, the mechanism and the phenomenon of primacy is disputed by many scientific studies. In our case study the association of blood pressure with the rise cephalgia was not proportional. Most often, patients regarded the fact of "heaviness" in the head as a headache; with a more detailed description of the nature of the pain, they could not say for sure:

"where and how the head hurts, the strength of the pain, duration." In this regard, the headache was recorded with a rise in the emotional state; in younger patients headache was associated with migraine headaches (8%) and headache strain I (8%). The same unambiguous meaning is associated with a complaint of dizziness, so in most cases the nature of dizziness was of vertebrobasilar symptoms, in 42%, one patient had a hereditary predisposition of Miniere's disease. Dizziness in the examined patients is not constant, in many cases it is a rather rare symptom, "they cannot remember when they were last." Subjective complaints of anxiety, insomnia, memory loss have been associated with dyscirculatory encephalopathy on the background of hypertension, and the higher the blood pressure, the brighter the display of the above description of X signs. Clinical symptoms were noted by the level of blood pressure in patients. The I with those fines AG changes have been minor violation Conver Gentz in 3 patients slight flattening nasolabial folds in 5 patients. In 2 patients, the difference in reflexes on the left and right sides. In the II degree of hypertension - in one patient there was a violation of oculomotor reflexes, mild sex in ptosis on the left. Smoothness of the nasolabial fold in 7 patients, tendon reflexes with a difference in sides and a significant increase from the norm. One patient has a pseudobulbar syndrome, the same patient has an unstable pathological syndrome. The III degrees and AG - disturbance convergence in all patients asymmetry entity (connected with the violation in smoothness corner of the mouth) - 5%; differences in reflexes left and right sides, pathological signs more clear in 7 patients, pelvic disorders in 5 cases, and cases of TIA.

Indicators ultrasound studies, sostoiani I blood flow did not differ from the control group of indicators and in patients with I degrees Strongly AG, the data brought closer and with s to the norm of both sides as well as systolic velocity KRO votoka in the aisles of $36 \pm 1,5$ cm / with a right, and on the left 98 ± 1.6 cm / s, and the cerebral reactivity index averaged 65 ± 1.5 on both sides, there was no significant difference with the control group (Fig. 1).

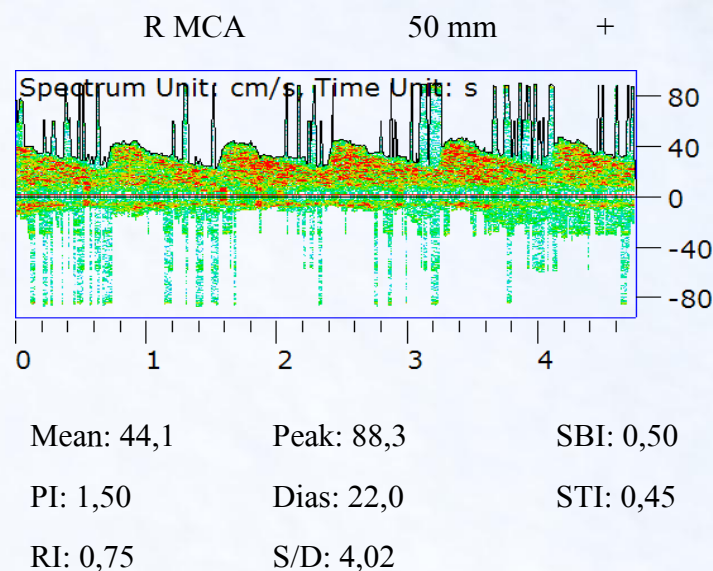


Fig. 1. B. 51, Asymmetry of velocity parameters along the intracranial arteries. Increase in speed parameters along the SMA and ICA on the right and PA on both sides. Decrease in speed parameters along the PMA on the right and ICA on the left. Dystonia of the cerebral vessels with a decrease in the tone of the arterial bed.

In patients with grade II and hypertension, ultrasound data are lower than in the control group. Systolic blood flow velocity was 85 ± 1.7 cm / s on the right and 89 ± 1.5 cm / s on the left. The index of cerebral reactivity (ICR) was found on the right 56 ± 1.8 , on the left 59 ± 1.5 , which indicated the prevalence of vascular reactions compared with patients of grade I and AH, respectively, these patients constituted a group with a high risk of background, to vascular catastrophe of cerebral circulation (Fig. 2).

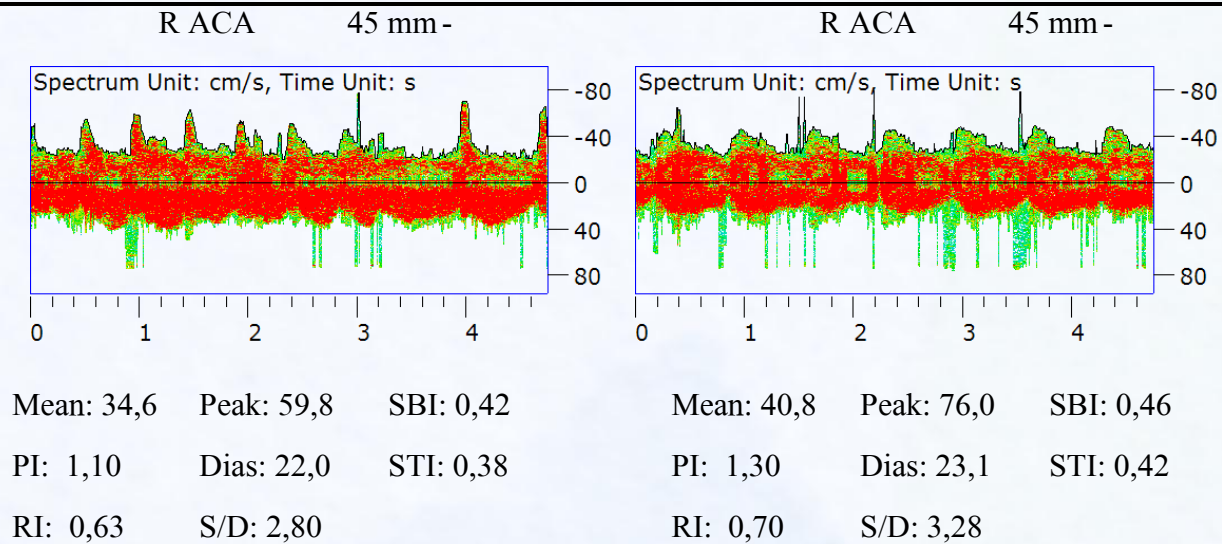


Fig . 2. B. - 65 years old. The asymmetry of blood flow on the MCA PMA was not revealed. Increase in speed parameters along the ICA and PA on both sides. Dystonia of the cerebral vessels with an increase in the tone of the arterial bed. Heart rhythm disorders

Systolic velocity indicators according ultrasonic studies in patients III Art e fines AH the figures were much lower than in the control group and lower than the previous group II degrees and AH, amounted to $84 \pm 1,5$ cm / s in 10 patients on average, y of patients with a history of TIA, one of the sides showed 80 ± 1.7 cm / s, such a decrease in blood flow velocity is natural and is confirmed by many literary sources. In accordance with this regularity observation aetsya reduction index cerebrovascular and DCCH I yar hydrochloric reactivity (ICR) on average $52 \pm 1,1$. Thus, in patients with an increase in blood pressure, the risk of developing acute cerebrovascular accident increases, this is evident from the level of decrease in cerebrovascular reactivity in comparison with groups with hypertension, where the numbers are stable (in the control group), and where there are cases of transient ischemic attack. (fig. 3).

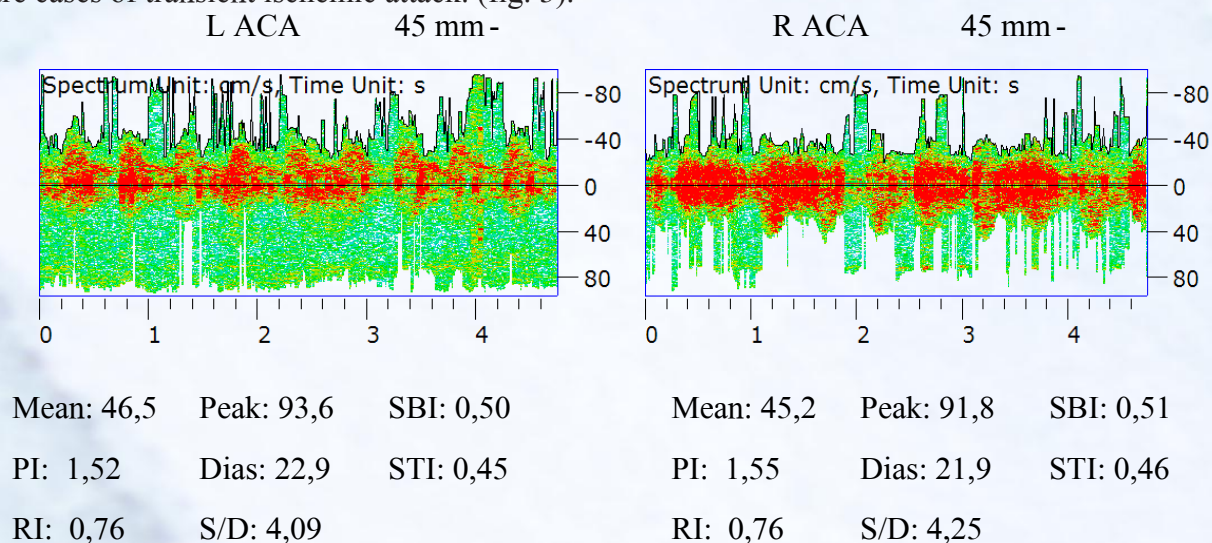


Fig . 3. B. - 76 years old. Increasing the speed parameters for the AGR, PMA, ICA and PA of both sides. Comparative difficulty of perfusion in all intracranial vessels on both sides. Hypertonicity of atherosclerotic altered vessels.

In addition, well traced parallel relationship with an increase in blood pressure and increase of the risk of heart disorders, particularly structural abnormalities of the left ventricle, in the form of myocardial hypertrophy and varying in severity level I dilation. The result of the evaluation of echo cardiographic parameters in the cases of examination of patients was found about, in grade I AH in only two patients, thickening of the LV walls, leading to the formation of a concentric type of remodeling, as the initial stage of adaptation of the heart to stress. The same changes are observed in the subgroup with II degree of hypertension, but in large cases, in 8 patients, that is, an increase in LV remodeling is directly proportional to an increase in blood pressure. In the subgroup III degree of hypertension, a noticeable restructuring of the LV to the type of concentric hypertrophy is noticeable, where not only a noticeable thickening of the walls, but also an increase in the mass of the myocardium itself, due to depletion of the reserve of load on the heart, is associated with an increase in blood pressure, in such patients, more than 50%. Thus, as can be seen from the analysis of LV hypertrophy study is not favorable for the factor in the risk of cerebrovascular accident.

The degree of functional status was evaluated on an index Bartel, indicators questionnaire to have patients 1 degree AH corresponded light depending on daily life 98 ± 2 points, patients with II degree hypertension at admission level index Bartel was 95 ± 1 point, which is also corresponds to light addiction in everyday life. The index level is 90 ± 3 points, was observed in patients of III degree of hypertension, which is a near-limit border of moderate dependence in everyday life. In this way, as a consequence of a long and not efficiently controlled arterial hypertension observed the development of vascular changes in the brain, with subsequent hypoxic and ischemic lesions of the brain substance.

A combination of antihypertensive drugs with drugs improving cerebral blood flow and metabolism of nervous tissue, a priority claim of reducing the stroke and vascular dementia. In recent years, the action of succinic acid has been deeply studied, which is a unique intracellular metabolite that increases microcirculation in the brain without changing the level of blood pressure and cardiac activity. Such preparation is - Neurox, an antioxidant, a neuroprotective agent having axiomatic and counterclockwise in the convulsive action. Possessing a powerful effect on oxidative stress, it has been successfully used in the therapeutic profile, according to the literature. Examined patients received Neurox in / in within 10 days with saline, a second course on this same scheme 3 months. It should be noted that after the course of treatment, there is a reliably statistically significant effect of the drug on all indicators of the Bartel scale questionnaire, in all subgroups, different in terms of the degree of increase in blood pressure. The I level AH is 98 ± 5 points, in the II degree AG 98 ± 2 points, and III degree AH 95 ± 0 points, moving from moderate dependence on cabbage surrounding, in the light. Upon admission to the hospital and after undergoing a course of treatment, the dependence of daily life in patients of I and II degrees of hypertension was significantly higher than in patients with III degrees of hypertension. Thus, the combination of neuroxon treatment with hypotensive drugs enhances the therapeutic effect, shortens the duration of treatment for patients with hypertension, and is a preventive therapy for cerebral catastrophes.

Literature

1. Geraskina L.A. Arterial hypertension and stroke: cardio-neurological aspects of secondary prevention. // Neurology, neuropsychiatry, psychosomatics. 2014; (special issue 2): 56–61.
2. Suslina Z.A., Geraskina L.A., Fonyakin A.V. Topical issues and a rational approach to the treatment of arterial hypertension in vascular pathology of the brain // Cardiovascular therapy and prevention, 2005; 4 (3), part I, p. 82-87
3. Ovchinnikov Yu.V. Arterial hypertension before and after ischemic stroke. Dis. ... Doctor of Medical Sciences, Moscow, 2008, 293 p.
4. Lopina E.A., Dushina A.G., Libis R.A. Target blood pressure levels in hypertensive patients after acute cerebrovascular accident. Cardiology. 2019; 59 (8): 72-76. <https://doi.org/10.18087/cardio.2019.8.n337>
5. Kernan WN, Ovbiagele B., Black HR, et al. Guidelines for the prevention of stroke in patients with stroke and transient ischemic attack. a guideline for healthcare professionals from the American Heart Association / American Stroke Association. Stroke. 2014; 45 (7): 2160-236.
6. Mattle HP, Kappeler L, Arnold M, et al. Blood pressure and vessel recanalization in the first hours after ischemic stroke. Stroke 2005; 36: 264-9.

7. Mancia G., Laurent S., Agabiti-Rosei E. et al. Reappraisal of European guidelines on hypertension management: a European Society of Hypertension Task Force document // J. Hypertens . - 2009 .-- 27 .- - 2121-2158.
8. Mamurova M ., Dzhurabekova A ., Mamurova M ., Shomurodova D . - Indicators of methods of functional diagnostics and neurological disorders in patients with discirculatory encephalopathy against the background of arterial hypotension // Journal of neurology and neurosurgery research volume 1, issue 1 T oshkent -2020.17-21
9. Mamurova M., Dzhurabekova A., Mamurova M., Shomurodova D. - Indicators of methods of functional diagnostics and neurological disorders in patients with discirculatory encephalopathy against the background of arterial hypotension / Journal of neurology and neurosurgery research volume 2, issue 2 T oshkent-2020.58- 68