SPECIFIC ASPECTS OF THE CLINICAL COURSE OF OPHTHALMOLOGICAL DISEASES IN PATIENTS WITH VERTEBRO BASILIAR DEFICIENCY

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Relevance of the topic. Nowadays, cerebrovascular diseases are widespread, and these diseases are the main cause of chronic decrease in visual acuity, blindness and disability of patients of different ages. Cerebrovascular diseases are interconnected with diseases of internal carotid arteries and vertebral artery vessels [1,2,3]. Atherosclerosis, arterial hypertension, and diabetes are the causes of occlusion of internal carotid arteries and vertebral artery vessels. Damage to these arteries leads to damage to the cortical and subcortical centers of the visual organs [4,5]. As a result of this, patients experience a chronic decrease in visual acuity, the appearance of floating spots in front of the eyes, and the appearance of various types of scotomas in the field of vision [1,3,4]. The above-mentioned clinical signs lead to a deterioration in the quality of life of patients. Currently, the fact that the etiopathogenesis of damage to the organs of vision in pathologies of the vertebro-basilar system has not been fully studied and the criteria for prevention and treatment have not been fully developed remains one of the pressing problems of ophthalmology.

The purpose of the study. Early diagnosis of clinical signs of eye diseases in patients diagnosed with vertebrobasilar insufficiency and study of their specific clinical course

Material and methods. From August 2021 to November 2022, there were 30 patients (34 eyes) with vertebrobasilar circulatory system deficiency in the Department of Neurosurgery and Ophthalmology of the Central Hospital of the Ministry of Internal Affairs. The average age of the patients was 55.2±9.7 years. The average bed day was 11.5±5.1 days.

All patients were divided into 2 groups according to the course of the disease and anamnesis. In 19 patients of the main group I, acute pathological conditions in retinal vessels were detected in 19 eyes. In 11 patients of the II main group, chronic ischemic conditions were detected in 11 eyes. Biomicroscopy, visometry, computer perimetry, optical coherence tomography, ophthalmotonometry, and

neurophysiological examinations were performed from general ophthalmological examination methods. Ultrasound doppler examination of brachiocephalic blood vessels, MSCT angiography, carotid angiography were performed as special examination methods. A comprehensive examination was carried out at the time of the first application, on the 5th and 10th days of treatment. In the treatment of all patients, drugs were prescribed based on medical standards.

Analysis of the obtained results.

Patients complained of pain around the eyeball, narrowing of retinal arteries, dilation of veins, microaneurysms, small hemorrhages in the form of dots and spots, swelling of the optic nerve disc and macula, spontaneous pulsation of the central retinal artery were observed in biomicroscopy. After starting adequate conservative therapy, these complaints began to decrease by 5-6 days in both groups.

In the first main group, the sudden loss of visual acuity occurred in 10 eyes, on average, from 1/∞ pr.l.certa to 0 (zero), and in 9 eyes, it decreased to 0.06±0.02, and in the second group, the vision was only permanently reduced. 0.1 ± 0.08 indicators were found in 11 eyes as it decreased. We can see that visual acuity improved by 3.5 times by 10 days in main group I, and by 2.4 times in main group II. The difference in the ratio between the groups by 1.46 times is explained by the acute type of the process in the patients of the first group and its easy elimination when optimal conservative treatment is carried out.

Tonometry in all groups of patients registered normal values during the observation period, on average 11.9±3.2 mm. sim. above formed

In the kinetic computer perimetry, in the first periods, the threshold of the retina was 16.1 ± 2.6 decibels (Db) in the patients of the main group I, and by 10 days it was 17.9 ± 2.3 Db. This indicator was 18.6±3.7 and 19.1±2.8 Db in the patients of the II main group, respectively, during the above examination periods. We can see that the main reason why the indicators belonging to this group remained almost unchanged is due to irreversible apoptosis of axons of ganglion cells. In static perimetry, the above ideas have been proven. In the perception of differential light, the sum of the total field of vision in the main group I was 410±50.2 degrees in the first period, and we can see that it increased by 1.09 times (445±26.2) by 10 days. In the main group II, it had 441±46.2 and 479±32.5 degrees, respectively. By 10 days in the field of vision, relative and absolute scotomas in the first group decreased from 65.0% to 27.8%, while in the second group, the difference between these indicators was 16.3%.

In the chronic type, 30% of patients changed their dynamics to the positive side, while this result was achieved by 61% in the first main group.

Conclusions.

Chronic cerebral ischemia and vertebro-basilar blood circulation insufficiency play an important role in the development of chronic ischemic neurooptic opathy [2,5]. This condition is caused by metabolic and neurodegenerative changes in the optic nerve, muscle nerves that move the eyeball. The results of the investigation show that early detection and timely treatment of changes in the organs of vision in vertebrobasilar blood circulation insufficiency are important in preserving the vision of patients and improving their quality of life. It is very important for an ophthalmologist to detect this disease in time and make a correct diagnosis, since the first symptoms of stenosis of the arteries in the vertebro-basilar basin appear in the cerebrovascular system. According to the received information, according to the conclusions of the optical coherence tomography examination, by studying the angioarchitectonics of the optic nerve, in the future, the normative basis of the quantitative indicators of the optical coherence tomography angio mode in the diagnosis of changes in the organs of vision in pathologies of the vertebro-basilar system can be formed.

Literature.

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