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## Андижанский государственный медицинский институт ЛЕЧЕНИЕ БОЛЬНЫХ ПЕРВИЧНОЙ ОТКРЫТОУГОЛЬНОЙ ГЛАУКОМОЙ

**Резюме:** Глаукома относится к наиболее тяжёлым заболеваниям в офтальмологии, в настоящее время около 10–15% больных глаукомой, адекватном лечении, обречены на слепоту. Согласно национальному руководству представляет собой большую группу хронических заболеваний различного генеза, характеризующихся повышением внутриглазного давления за пределы толерантного уровня, развитием глаукомной оптической нейропатии и снижением зрительных функций с возникновением типичных дефектов поля зрения. Несмотря на значительные успехи, достигнутые в медикаментозном и хирургическом лечении, глаукома и в настоящее время остается одной из причин неизлечимой слепоты.

**Ключевые слова:** глаукома, слепота, комплексная терапия, оптическая нейропатия.

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## TREATMENT OF PATIENTS WITH PRIMARY OPEN-ANGLE GLAUCAM

**Resume:** Glaucoma is one of the most serious diseases in ophthalmology. Currently, about 10-15% of patients with glaucoma, even with adequate treatment, are doomed to blindness. According to national guidelines, it represents a large group of chronic diseases of various origins, characterized by an increase in intraocular pressure beyond the tolerant level, the development of glaucoma optical neuropathy and a decrease in visual functions with the occurrence of typical visual field defects. Despite the significant successes achieved in medical and surgical treatment, glaucoma still remains one of the causes of incurable blindness.

**Key words:** glaucoma, blindness, complex therapy, optical neuropathy.

**Relevance.** Glaucoma is one of the severe forms of ophthalmic pathology, and, despite the significant success achieved in surgical, laser and drug treatment, the disease remains one of the causes of incurable blindness.

Multivariate analysis conducted by Kiseleva O.A. et al. (2015) showed that in the nosological structure of blindness and low vision in Russia among the

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adult population, glaucoma occupies a leading place and amounts to 29%. This is confirmed by the literature data of recent years [1,4].

Currently, most researchers share the view of A. Nesterov. (2003) on glaucoma as a multifactorial disease with a threshold effect. The general principle of the treatment of multifactorial diseases is, first of all, in the correction of pathogenetic factors. Based on the study of the pathogenesis of primary glaucoma, treatment methods have been developed aimed at reducing intraocular pressure, improving blood supply and metabolic processes in the ganglion cells of the retina and optic nerve. To this end, in recent years, antioxidant drugs have been widely used that improve blood supply, metabolism and tissue trophism, and neuroprotectors [3,7]. Considering that despite the normalization of intraocular pressure, glaucoma continues to progress [2,3,5], publications began to appear more and more often, in which glaucoma is identified with neurodegenerative diseases such as Alzheimer's disease and others [8]. The death of ganglion cells of the retina and axons of the optic nerve in glaucoma, as in all neurodegenerative diseases, develops as a result of physiologically programmed apoptosis [4,6]. Neurodegenerative diseases are diseases that arise as a result of progressive degeneration and death of neurons that are part of certain structures of the central nervous system (CNS), leading to a break in the connection between the central nervous system and an imbalance in the synthesis and isolation of the corresponding neurotransmitters, and, as a result, causing memory impairment, mental abilities of a person, coordination of movements, etc. [1.7].

Based on new views on the pathogenesis of glaucoma, in order to stabilize the glaucomatous process, a neurotransmitter drug was used in the study. It should be noted that in the 70s of the XX century neurotransmitters (eserin, proserin, and other anticholinesterase drugs) [4] were widely used in the treatment of glaucoma patients, but they were abandoned due to pronounced side effects. There are few reports in the literature on the effectiveness of

ceraxon [1] in the complex treatment of glaucoma patients with a neuroprotective neurotransmitter effect.

Our attention was drawn to the drug neuromidine (ipidacrine), which, by blocking cholinesterase, has a direct stimulating effect on the conduction of an impulse along nerve fibers, interneuronal and neuromuscular synapses of the peripheral and central nervous system. By enhancing the energy potential of the cell, it has a positive effect on cognitive functions, improving memory and inhibiting the progressive course of dementia.

Given the pharmacological effect of neuromidine, we decided to study the possibility of using it both in combination with well-known drugs, and as monotherapy for patients with primary glaucoma with compensated intraocular pressure.

**Purpose of the study.** Clinical evaluation of the effectiveness of the complex treatment of patients with primary glaucoma with compensated intraocular pressure.

**Material and research methods.** 65 patients were treated, of which 52 patients received neuromidin the day after surgery, and the rest in the period from 1 to 6 months after surgery. It is shown that the effectiveness of the drug on the organ of vision does not depend on the time of surgery.

The results of the study. An analysis of the results showed that upon discharge from the hospital, visual acuity and visual field improved in both groups, but with conservative treatment, an increase in visual acuity of 0.1 was observed in 42 of 76 eyes and 0.2 in 8 eyes, and in the control group - by 0.1 in 22 eyes, by 0.2 - in 3 eyes.

The number of cattle at standard points decreased 3 times in the main group, and 4 times in 30 eyes, and 1.5 times in the control group.

HRT indicators at discharge from the hospital almost completely coincided with those at admission in both groups.

After 1 month after treatment, the achieved effect was maintained in both groups, and on HRT there was a slight decrease in the excavation area and expansion of the neuroretinal girdle in 25 eyes in patients treated with conservative treatment.

After 3 months in the control group, a decrease in performance was noted in all patients, in 3 eyes below the performance before treatment due to progression of cataracts. In the treatment of modern drugs, visual acuity indicators decreased in 4 eyes (3 - due to the progression of cataracts, and 1 - as a result of the development of central retinal vein thrombosis against the background of a hypertensive crisis), while the rest remained stable.

After 6 months in 60% of cases there was a decrease in the effect obtained. HRT indicators did not significantly change.

After 9 months, the effect was preserved in 11 of 76 eyes.

The results can be explained by the fact that by blocking cholinesterase, neuromidine has an indirect vasodilating effect on peripheral vessels. The decrease in IOP is associated with activation of the outflow of intraocular fluid as a result of flattening of the iris and widening of the anterior chamber angle due to the miotic effect, but since our patients did not exhibit pronounced myosis, it can be assumed that some other mechanisms are involved, including central regulation of ophthalmotonus .

Strengthening the contractility of smooth muscle fibers under the influence of acetylcholine receptor agonists, the drug helps to reduce the ciliary muscle and activate the outflow through the drainage system of the eye.

Since elderly and senile people suffer from glaucoma, neuromidin is useful to them in the sense that it has a positive effect on cognitive functions, improving memory and inhibiting the progressive course of dementia.

**Conclusion.** The results indicate a positive effect of neuromidine on visual functions and the state of hydrodynamics and stereometric parameters of

the disk, which allows us to recommend it in the complex treatment of patients with glaucoma.

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