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BASICS OF CONSERVATIVE TREATMENT OF PRIMARY OPEN-ANGLE GLAUCOMA

Sabirova Dilrabo Bahodirovna
Senior Assistant of the Department of Ophthalmology,
Kadirova Aziza Muratovna
Associate Professor of the Department of Ophthalmology,
Samarkand State Medical University

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Abstract:

We observed 47 patients, of which 31 were women, 16 were men, aged from 41 to 63 years. All patients were divided into 3 groups. Group 1 included 20 patients (40 eyes) in whom the anterior chamber angle (ACA) was open (3-4 degree of opening), subatrophy of the iris root was expressed, destruction of fibrous structures, and a network of blood vessels was visible. In 16 patients (31 eyes), who were assigned to group II, the following were revealed: the UPC is open (3-4 degrees of opening), moderate exo and endopigmentation, exfoliation in some patients on the trabecula. Group III included 11 patients (22 eyes), in whom examination revealed an open, but narrow, coracoid angle of the anterior chamber, uneven pigmentation of the structures of the APC, and destruction of fibrous structures. . Based on the results of our observations, we can conclude that, based on gonioscopy data, a patient with open-angle glaucoma in the initial stage of the disease can be immediately prescribed a type of treatment in the form of monotherapy or a combination of drugs and determine its prognosis.

Keywords: open-angle glaucoma, gonioscopy, the angle of the anterior chamber, intraocular pressure

INTRODUCTION. Glaucoma is one of the most common eye diseases and, according to statistics, ranks among the leading causes of blindness [3, 7, 9, 12]. The prognosis of the disease largely depends on drug therapy. It is known that the immediate causes of deterioration in the outflow of aqueous humor are trabeculopathy [13]. It is with this that the deterioration of the filtering function of the trabecular diagram and partial blockade of the scleral sinus is associated [1, 4, 8, 11, 14]. Trabeculopathy has the following abilities: a decrease in the number and decrease in the functional activity of cells in the trabecular filter; thickening of trabecular plates; narrowing and partial collapse of trabecular slits; destruction of fibrous structures [2, 5, 6, 10].

THE PURPOSE of our study was the optimal selection of drug treatment for patients with open-angle glaucoma (OAG) depending on the characteristics of the anterior chamber angle.

MATERIAL AND METHODS. We observed 47 patients, 31 of them women, 16 men, aged from 41 to 63 years. All patients were divided into 3 groups. Group 1 included 20 patients (40 eyes) in whom the anterior chamber angle (ACA) was open (3-4 degree of opening), subatrophy of the iris root was expressed, destruction of fibrous structures, and a network of blood vessels was visible. In 16 patients (31 eyes), who were assigned to group II, the following were revealed: the UPC is open (3-4 degrees of opening), moderate exo and endopigmentation, exfoliation in some patients on the trabecula. Group III included 11 patients (22 eyes), in whom examination revealed an open, but narrow, coracoid angle of the anterior chamber, uneven pigmentation of the structures of the APC, and destruction of fibrous structures.

All patients underwent monitoring of RO (true IOP) every 10 days, 1 month, 2 months, followed by repeating every 3 months.

RESULTS. Depending on which group the patient was assigned to, he was prescribed appropriate treatment. When selecting a drug therapy regimen, patients in groups I and II were prescribed the drug kasalatan 0.005% once a day at 20.00. The initial PO value in patients of groups I and II was found to be within the range of 25.0-31.0 mm Hg. In patients of group III, PO ranged from 24.0 to 32.0 mmHg. After 1 month from the start of treatment with xalatan 0.005% in each group, patients were divided into 2 more subgroups according to the degree of RO compensation. At the same time, in group I there is subgroup A, in which 64% of PO decreased to 16.0-17.8 mm Hg. In group II,

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subgroup A accounted for 43.7%. Thus, monotherapy with xalatan 0.005% was effective. Subgroup B (group I - 7 people, group II - 9 people) consisted of patients in whom PO was reduced to 21.0-23.0 mm Hg, i.e. full compensation did not occur. Patients of group II (subgroup B) were transferred to a combined method of treatment with drugs: xalatan once a day at 20.00 and timolol 2 times a day. When examining patients of subgroup B (group I), after 10 days, complete compensation of PO was revealed to 15.7-18.9 mm Hg. Additional reduction in IOP was 4.1-4.3 mm Hg. when transferring from Xalatan to Xalacom. In subgroup B of group II, in all patients RO decreased by 1.5-2.3 mmHg. and amounted to 20.5-21.5 mm Hg, while complete compensation of IOP did not occur. As an additional method of treatment, we chose laser trabeculoplasty (using a neodymium laser VISULAS 532 with a wavelength of 532 nm, since these patients had pronounced pigmentation of the UPC. Within a month after the procedure and instillation of xalatan and timolol, PO decreased in all patients in this group by 3.1-3.5 mmHg and amounted to 17.0-18.4 mmHg.

Of particular interest are patients of group III with an open but beak-shaped UPC. Taking this feature into account, patients were initially prescribed the drug fotil-forte (pilocarpine 4% + timolol 0.5%) 1-2 drops 2 times a day. Examining these patients after 10 days and 1 month, we found that this therapy did not give the desired result. PO decreased to 20.7-23.0 mmHg. and did not increase further. Patients of group III were sent to the laser center, where all of them underwent laser trabeculoplasty (LTP) using various methods depending on the pigmentation of the UPC. The effect of laser treatment was observed only during the first month and amounted to a decrease in PO by 1.7-2.2 mm Hg, often not reaching the norm.

After one month, the PO in these patients again ranged from 19.7 to 25.9 mm Hg, unevenly in different eyes of the same patient. The next stage of complex therapy was to prescribe to all patients in group III a combination of two drugs: fotil-forte 2 times a day and xalatan 0.005% 1 time a day. After just one month, PO decreased in all patients by 4.2-5.9 mmHg. and complete compensation of IOP was achieved. All patients were observed by us for two years. In addition to measuring IOP, visual acuity, visual field, and tonographic indicators were regularly examined. At the same time, we revealed the stability of all indicators, PO remained within normal limits, the maximum increase was detected to 20.4 mm Hg.

CONCLUSIONS. Based on the results of our observations, we can conclude that, based on gonioscopy data, a patient with open-angle glaucoma in the initial stage of the disease can be immediately prescribed a type of treatment in the form of monotherapy or a combination of drugs and determine its prognosis. If the IPC is open and weakly pigmented or not pigmented, subatrophy of the iris root is pronounced, then drugs of the prostaglandin group are most effective in treatment. If the UPC is open and endo- and exopigmentation is pronounced, then the combination of timolol and xalatan is most effective in treatment. In the case where the UPC has a beak-shaped profile, treatment with a combination of two drugs: Fotil-Forte and Xalatan is effective. In case of severe pigmentation of the UPC, laser trabeculoplasty is effective as an additional treatment method. Undoubtedly, xalatan 0.005% is preferable when choosing the optimal treatment for glaucoma - both in monotherapy and in combination with other antiglaucomatous drugs.

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