

LENSECTOMY IN THE TREATMENT OF PATIENTS WITH PRIMARY ANGLE-CLOSURE GLAUCOMA

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Relevance. Primary zClosed-angle glaucoma (CAG) is one of the complex forms of primary glaucoma, which often leads to blindness and low vision.

Traditional methods of treating PGG include medication, basal iridectomy surgery, and laser methods.[5]. These methods have insufficient effect on full compensation of intraocular pressure (IOP). At present, conditions have emerged for defining new principles and approaches to the treatment of patients with PGUG, the purpose of which should be not only to reduce ophthalmotonus, but also the maximum possible restoration and preservation of visual functions [1, 3, 4, 6]In this regard, recently a number of researchers have proposed the lensectomy operation.[2, 7, 8, 9].Currently, the effectiveness of this method varies among different patients according to data from different authors.

Purpose of the study: to study the effectiveness of surgical treatment of patients with PGG based on the method of lensectomy with implantation of an intraocular lens.

Materials and methods. A clinical examination was performed on 22 patients with PACG aged 45–60 years, whose eyes were anatomically significantly different from “normal eyes”:shallow anterior chamber up to 2.0 mm, increase in the anteroposterior size of the lens up to 4.6 ± 0.15 and eye length less than 22 mm.

All patients underwent traditional ophthalmological examination methods: visometry, direct and reverse ophthalmoscopy, biomicrophthalmoscopy, ultrasound biometry (UBM), goniobiomicroscopy, optical coherence tomography, tonometry, perimetry, and funduscopy. The axial length, horizontal and vertical diameters of the eye, the distance from the anterior surface of the cornea to the anterior and posterior poles of the lens, and the depth and thickness of the lens were also measured.

Before the operation, all patients subjectively felt pain in the area of the superciliary arch, rapid fatigue during visual stress, and noted the appearance ofrainbow circles around luminous objects.

Technique of lensectomy surgery.Through paracentesis at 10-11 o'clock, viscoelastic was introduced into the anterior chamber using a 2.4 mm keratotom, and anterior capsulotomy of the lens was performed using capsule tweezers. After aspiration-irrigation of the transparent lens, the corresponding artificial lens was implanted. To prevent attacks of secondary glaucoma, basal iridectomy was performed at 12 o'clock.

Results and their discussion.Patients noted a satisfactory subjective effect the next day. The results obtained remained stable throughout the observation period.

Visual acuity of 0.5-0.6 was achieved in 18 (81.8%) patients.The preoperative IOP level was 30–42 mm Hg (35.3 ± 5.8 mm Hg) under the influence of timolol.After the operation, IOP decreased

by 10–20 mm Hg, and most patients no longer needed to use antiglaucoma drops. According to data ultrasound biometry, an expansion of the iridocorneal angle to 16–20° and a decrease in IOP by 8.4–10.2 mm Hg were noted. A significant ($p < 0.001$) increase in the depth of the anterior chamber from the initial level was also noted, which 5–7 days after the operation averaged 3.16 mm. When studying the visual field, if before the operation a decrease in the visual field along all meridians by 15–20° (in some cases up to 30) and the appearance of scotomas were noted, then after the operation, an expansion of the boundaries of the peripheral visual field was noted in 14 eyes.

Conclusions. 1. Removal of the transparent lens with implantation (IOL) is an effective method for treating PACG. The operation significantly expands the anterior chamber angle, eliminates the phenomena of pupillary block and is a preventative measure against the development of an acute attack of glaucoma.

2. This method of extracting the transparent lens in patients with PACG is an alternative in cases where medications and laser treatment do not produce results due to a relatively short length of the eye axis, increased thickness of the lens and shallow depth of the anterior chamber.

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