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COMBINED SURGERY OF PHACOEMULSIFICATION, VITRECTOMY AND IMPLANTATION OF AHMED'S VALVE IN THE TREATMENT OF NEOVASCULAR GLAUCOMA

Oral

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Purpose:

Neovascular glaucoma caused by diabetic retinopathy is a complication that leads to blindness. Often endophotocoagulation of the retina is neither feasible nor sufficient. Eye pathology tends towards rapid progression, so in eyes with preserved visual potential immediate intervention, phacoemulsification with vitrectomy and implantation of Ahmed's valve is required.

Methods:

The results of 18 eyes treated for neovascular glaucoma, caused by diabetic retinopathy but still with preserved visual potential, are presented. In all eyes, at the first examination, decompensated neovascular glaucoma was diagnosed with visual acuity from light perception to 0.1. The chosen method of treatment is a combined operation, phacoemulsification with 25g 4-port vitrectomy, extended panretinal endolaserphotocoagulation and Ahmed's valve implantation. Intraocular pressure and visual acuity are measured on the day of the first visit, the first control, and after 7, 30, 90 days. The data were statistically processed and the results presented using the Microsoft Excel program.

Results:

The obtained results indicate a significant reduction of intraocular pressure by 58% with a standard deviation of +/-14 already at the first control without added postoperative antiglaucoma therapy in relation to the preoperative value. At subsequent controls, the intraocular pressure values were stabilized at an average value of 17 mmHg with a standard deviation of +/-3 mmHg without added antiglaucoma therapy. The results also indicate a significant improvement in visual acuity up to 4 lines on the Snellen charts.

Conclusions:

Based on the presented results, it is concluded that the method of combined surgery in neovascular glaucoma of eyes with preserved visual potential is the method of choice. Combined phacoemulsification with 25g 4-port vitrectomy, extended panretinal endolaserphotocoagulation and Ahmed's valve implantation is solution with excellent results.