



TREATMENT OF NEOVASCULAR GLAUCOMA BY THE METHOD OF MICROPULSE TRANSSCLERAL CYCLOPHOTO COAGULATION

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Abstract

Neovascular glaucoma, which is one of the main causes of irreversible blindness and disability, occurs with thrombosis of the central retinal vein in 37% of cases, with diabetic proliferative retinopathy in 50%. The main characteristics of secondary neovascular glaucoma are a significant decrease in vision, congestive injection, pain in the eye, persistent increase in IOP, corneal edema, turbidity of the intraocular fluid, due to impregnation buns from the neoplasms of the iris vessels and the angle of the anterior chamber.

Keywords; glaucoma, proliferative retinopathy, neoplasms, increased scleral.

Introduction

There is a pronounced rubiosis of the iris, the shape of the pupil joins, mydriasis and changes in the shape of the pupillary edge. Due to the radial abbreviations connective tissue. Unexpected occurrence of pain syndrome and heaviness in the eye may mask the clinical presentation of primary angle-closure glaucoma. Thus, despite the fact that everyone knows about neovascular glaucoma, new views and data on the hydrodynamics and clinical course of this pathology have been received, new drugs have appeared, laser drugs and surgical treatment, the problem of neovascular glaucoma remains one of the most until the end not studied problems of modern ophthalmology. The results of treatment of neovascular glaucoma do not satisfy patients and ophthalmologists, and are also the cause of high disability and visual blindness. Poorly amenable to surgical fistulizing operations due to hemorrhage during surgery and postoperative periods. Therefore, transscleral photocoagulation of the ciliary body with a diode laser in a micropulse mode in this disease shows its high efficiency due to inhibition of the production of intraocular fluid, and increased scleral





outflow which leads to a decrease in intraocular pressure and pain syndromes. In this regard, it seems relevant and practically significant to study the clinical effect of exposure to a diode laser in a micropulse mode . on the ciliary body in neovascular painful glaucoma.

Objective

Assess the effectiveness of transscleral diode laser cyclophotocoagulation and its effect on the clinical course of neovascular glaucoma.

Material and Methods

A clinical study and treatment with a micropulse diode laser for the destruction of the ciliary body were performed on the basis of the eye department of the 1st clinic of the Samarkand State Medical Institute and the ophthalmological clinic of A.A. Yusupov, Samarkand. Under supervision there were 30 patients with neovascular painful glaucoma, including 21 women and 9 men. When studying the general status of patients, the presence of concomitant diseases was revealed: coronary heart disease, hypertension and diabetes mellitus. The main complaint of patients before treatment was severe pain in the eye area, as well as lack of vision. To assess the state of the functions of the organ of vision, the following were performed: examination of the anterior eye using biomicroscopy , determination of visual acuity, examination of the peripheral field of vision on a spheroperimeter , measurement of intraocular pressure (IOP) using a Maklakov tonometer , examination of the fundus by direct and reverse ophthalmoscopy, ultrasound examination of the eye, UBM eye. For gonioscopy at the presence of edema of the cornea, a 5% solution of sodium chloride was used by instillation the conjunctival sac, as well as inside the vein , dripped a 20% solution of Matit .

Technique for contact transscleral cyclophotocoagulation with a diode laser: after 3-fold treatment of the edges of the eyelids with a solution of betadine , a solution of lipocaine 2% in an amount of 4 ml was injected retrobulbarno , a solution of alkaine was instilled 2 drops 3 times with an interval of 2 minutes, a sterile mask, blepharostat . Departing from the limbus at a distance of 4 mm in the projection of the stripe part, laser photocoagulation of the ciliary body was performed with a micropulse diode laser (" SubCyclo Supra-810"). The number of procedures for each patient was performed 2-3 times at intervals of 3-4 days. 432 This procedure was tolerated by the patients quite easily, no side effects from the received method were noted. After the procedure, for the relief of inflammation, Preforte solution 1 % 2 times, as well as Kyupen Forte solution 3 times a day were prescribed. To dilate the pupil, we used a





midoptik solution of 2.5% 2 times a week. In addition, to lower IOP, we used Timalol 0.5% 2 times a day.

Results

The effect of laser photocoagulation was studied by us according to the following criteria: the condition of the cornea, pain syndrome and IOP level. Corneal edema before this procedure was observed in 80% (24 eyes). On the first day after laser photocoagulation of the ciliary body, the number of patients with a transparent cornea reached 63.33% (19 eyes), and a week later - up to 86.6% (26 eyes). Minor and severe eye pain before treatment was noted in 60% (18 eyes) of patients, immediately after the procedure, the number of patients with pain, regardless of the IOP level, decreased by more than 4 times. The range of IOP values before laser photocoagulation fluctuated in a wide range from 38 mm Hg. Art. up to 60 and more (average 48.8 mm Hg). Immediately after the treatment, there was a decrease in IOP by 2.2 - 3.1 times from the initial level of IOP. If before the operation the number of patients with an IOP of 50 mm Hg. Art. and above was observed in 70% (21 eyes) of patients, then already on the first postoperative day their number with an IOP level of 35 mm Hg. Art. and below reached 76.7% (23 eyes), by the end of the month - 80% (24 eyes), where IOP did not exceed 32 mm Hg. Art. The exception was 10% (2 eyes) of patients with IOP 40 - 45 mm Hg. Art., which was subsequently carried out trabeculectomy. We did not find a positive effect of this procedure on visual acuity, since preoperative visual acuity in patients with neovascular glaucoma was 0 (zero).

Conclusion. laser photocoagulation of the ciliary body in micropulse mode is an effective and promising method for the treatment of patients with neovascular glaucoma. This procedure leads to a decrease in IOP, the disappearance of pain, and is also a pathogenetically substantiated method of treatment, and is also a preliminary stage for antiglaucoma surgery.

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