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Research Article

INFLUENCE OF RISK FACTORS ON THE SURGICAL EFFICIENCY OF TRABECULOPLASTY USING THE ARGON LASER IN GLAUCOMA

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ABSTRACT

The influence of risk factors on the surgical effectiveness of trabeculoplasty using Argon laser in glaucoma.

This article discusses the use of laser surgery in glaucoma and the impact of risk factors on the surgical effectiveness of trabeculoplasty using Argon laser.

KEYWORDS

Glaucoma, trabeculoplasty using Argon laser, risk factors.

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INTRODUCTION

One of the most urgent problems of modern ophthalmology is glaucoma. This disease is one of the most serious, leading to complete irreversible loss of vision. Currently, about 10-15% of patients with glaucoma, even with adequate treatment, are doomed to blindness.

Laser surgery is one of the stages in the treatment of uncompensated glaucoma, which enhances and sometimes cancels antihypertensive drug therapy.

The surgical efficiency of trabeculoplasty using the Argon laser for glaucoma and its complications varies from 55% to 80%. The difference and heterogeneity of indications in some cases, preventive delimitation in glaucoma and its complications is carried out in the absence of complicating factors (glaucoma excavation of the optic disc and atrophy of the optic disc). In such cases, the use of prophylactic trabeculoplasty using the Argon laser in patients with favorable forms, underestimation of risk factors when performing ALTP lead to an increase in the number of complications and a decrease in the surgical effectiveness of the method.

In connection with this, the task was to determine the putative risk factors and find out what effect they have on the outcomes of laser interventions in glaucoma and its complications. Therefore, this disease still remains one of the main causes of disability and blindness. In recent years, the situation has not improved, but worsened in the Ferghana Valley.

MATERIALS AND METHODS

During the treatment, in all cases, trabeculoplasty using the Argon laser was performed near the limbus. Therefore, the goal of the task was to examine 45 patients (29 eyes) with glaucoma and its complications before and after delimiting trabeculoplasty using the Argon laser. Apparently, in all patients, glaucoma occurred against the background of predisposing factors. Among such factors were: a) bleeding; b) Transient rise in IOP; c) corneal burns; d) Iritis is the most serious complication of laser iridectomy; e) clouding of the lens is a common complication of laser iridectomy. Such a study of our patients from 33 to 63 years was conducted for three years. Our delimiting patients, trabeculoplasty using the Argon laser was performed using a YAG laser with a green diode laser, A.R.C. Radiation by trabeculoplasty intervention using the Argon laser was carried out in such a way that after the application of laser beams, 2-3 line punctures appeared on the eye layers. Within 3 years, operations performed by laser intervention were performed in the regional eye hospital. These surveys were carried out during 2019-2021.Results

During the study, for the first time, an attempt was made to identify risk factors that affect the effectiveness of laser interventions in glaucoma and complications: a) bleeding; b) transient rise in IOP; c) corneal burns; d) iritis; e) clouding of the lens. For these purposes, we selected patients

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considering and documenting the following factors: degree of glaucoma. In 45 patients in 29 eyes (64.4%) after trabeculoplasty with the Argon laser, reliable results were obtained. In 4 eyes (10%) continued hemorrhage was noted, which required additional conservative treatment. In 38 of 45 (82%) eyes subjected to trabeculoplasty using the Argon laser, high glaucoma with complications was detected, the remaining 7 (18%) had open-angle glaucoma. Thus, the presence of all degrees of glaucoma does not reduce the results of delimiting trabeculoplasty using the Argon laser. When studying the effect of the effectiveness of trabeculoplasty using the Argon laser on glaucoma, all patients were divided into two subgroups depending on the type of glaucoma: closed-angle, open-angle. The magnitude of the degree of glaucoma was measured with Maklakov's tanometry. The first subgroup (moderate glaucoma) consisted of 7 eyes, the second - 15 eyes. Among 45 patients with advanced glaucoma, 42 people (79% of eyes) complained of pain in the eye area, low vision, and high eye pressure. The remaining 9 (20%) had no complaints.

DISCUSSION OF THE RESULTS

In the last 3 years, with the development of technologies, laser interventions for high myopia on the retina have made significant progress in the treatment of this disease. Our important and present work is to study the influence of risk factors on the surgical effectiveness of trabeculoplasty using the Argon laser in the treatment of glaucoma, as well as to develop indications and improve the use of the method as a preventive measure. During the study, high rates of surgical efficiency of trabeculoplasty using the Argon laser in patients with glaucoma were demonstrated, which, according to our data, amounted to 92%.

The literature indicates the effectiveness of trabeculoplasty using the Argon 78-94 laser. When assessing the risk of progression in attacks of angle-closure glaucoma. In works devoted to preventive interventions in glaucoma, it is noted that the approach to their treatment should be strictly differentiated, depending on their state of intraocular pressure.

CONCLUSIONS

During the study, a practical and statistical analysis was carried out, which showed that the surgical effectiveness of delimiting trabeculoplasty using the Argon laser in glaucoma is practically significantly influenced by the drainage function of the posterior and anterior chambers. We achieve a decrease in intraocular pressure due to the movement of fluid from the posterior to the anterior chamber.

According to our results of the study and analysis of modern literature, we have identified a group of absolute indications for delimiting trabeculoplasty using the Argon laser in glaucoma. Due to argonolaser trabeculoplasty, we have achieved success in preventing complications in glaucoma.

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