



Journal Website:
<https://theamericanjournals.com/index.php/tajmspr>

Copyright: Original content from this work may be used under the terms of the creative commons attributes 4.0 licence.

Research Article

PHACOEMULSIFICATION OF IRIS AS A TREATMENT FOR PATIENTS WITH CLOSED-ANGLE GLAUCOMA

Submission Date: May 14, 2023, Accepted Date: May 19, 2023,

Published Date: May 24, 2023 |

Crossref doi: <https://doi.org/10.37547/TAJMSPR/Volume05Issue05-09>

Sabirova D.B.

Assistant Department Of Ophthalmology Samarkand State Medical University, Uzbekistan

Orziyev A.F.

Department Of Ophthalmology 3 Course Resident Of The Magistracy Samarkand State Medical University, Uzbekistan

ABSTRACT

We examined 55 patients (62 eyes) with primary closed-angle glaucoma. All of them were operated by ultrasonic phacoemulsification with IOL implantation. The patients' age ranged from 55 to 75 years (mean age 65 years). There were 42 (78.7%) women and 13 (21.3%) men. The initial stage of glaucoma was detected in 29 eyes, advanced glaucoma in 47 eyes, and advanced glaucoma in 45 eyes. The operation was performed in 42 patients against the background of acute and subacute glaucoma attack. Intraocular pressure level was decreased in 51 eyes (36.4 %) before the planned operation. In the remaining patients the level remained elevated and high. Refraction in patients was mostly hyperopic. Complicated cataract of various degrees was detected in 127 (77,9%) eyes, preoperative visual acuity was 0,01 to 0,8, which averaged 0,31 to 0,09.

KEYWORDS

Angle-closure glaucoma, lens phacoemulsification, IOL implantation, intraocular pressure, anterior chamber angle, gonioscopy.

INTRODUCTION

Glaucoma is one of the main causes of blindness and poor vision and is in the top three on the list of diseases of the visual organ with disabilities. According to WHO,

about 30 million people in the world or 26.6% of the total number of patients with glaucoma suffer from primary closed-angle glaucoma (N. Congdon et al.,

1992). In 70-80% of patients with primary angle-closing glaucoma, closed-angle glaucoma is observed with eyelid blockage. In the pathogenesis of the disease, the main joint is the inner block of the drainage system of the eye, which develops with a certain anatomical predisposition and age-related changes. One of the most important anatomical factors that predispose to the appearance of primary angle-closing glaucoma is the thickness and condition of the lenses, which are determined by genetic factors and affect the shape of the eye as a whole. With age in patients with PACG, an increase in lens thickness is accompanied by a decrease in the depth of the front camera. Many ophthalmologists attach particular importance to blocking the angle of the anterior chamber with the root of the iris against the background of an increase in the thickness of the lens and a decrease in depth to the anterior displacement of the lens and iridolenticular diaphragm. front camera. The positive effect of cataract extraction on hydrodynamics of the eye has been noted by many authors. Many authors argue that in patients with a short axis of the eye, along with refractory problems in the form of hypermetropia, astigmatism and amblyopia, disorders are more common in hydrodynamics of the eye due to the narrow angle of the anterior chamber. In this category of patients, cataract extraction leads to positive changes in hydrodynamics. Other authors note the highly functional results of cataract surgery in patients with hypermetropia and microphthalmos, considering them as an effective and stable way of correcting visual functions even in the presence of transparent lenses. The best results of extracapsular cataract extraction with IOL implantation are K.B. Obtained by Pershin (1996) in patients with closed-angle glaucoma in the early stages of the disease, while the presence of organic changes in the anterior chamber angle significantly worsens the hypotensive effect. operations performed. In this regard, in recent years,

during the operation, some authors have proposed a reconstruction of the front camera angle with goniosynechia dissection and removal. The introduction of the method of ultrasonic Phacoemulsification into extensive ophthalmic practice made it possible to significantly reduce the risk of postoperative and postoperative complications, to increase the effectiveness of cataract treatment. It should be noted that although there are enough publications on the hydrodynamics of patients with primary closed-angle glaucoma dedicated to the positive results of lens removal and ultrasonic Phacoemulsification, they are all dedicated to the surgeon.

In our opinion, the effect of ultrasonic Phacoemulsification on hydrodynamics and the results of the treatment of patients with advanced stages of glaucoma with organic damage to the anterior chamber angle and acute attack of glaucoma with swelling of the cornea and shallow anterior chamber require additional study. The study of this issue was the subject of our work.

PURPOSE OF THE WORK

assessment of the effectiveness of surgical treatment of patients with primary angle closed glaucoma with Pupil block on the basis of the method of Phacoemulsification of ultrasonic lenses with intraocular lens implantation.

MATERIALS AND RESEARCH METHODS

The study was conducted in a multidisciplinary clinic of the SamMU Department of Ophthalmology. We examined 55 patients (62 eyes) with primary closed-angle glaucoma. All of them were operated on by ultrasonic Phacoemulsification with IOL implantation. The age of patients is between 55 and 75 years old (65

years on average). There were 42 females (78.7%), and 13 males (21.3%). The initial stage of glaucoma has been identified in 29 eyes, the severe stage in 47 eyes, and the advanced stage in 45 eyes. In 42 patients, the operation was performed against the background of an acute and subacute attack of glaucoma. Before the planned operation, the intraocular pressure level decreased in 51 eyes (36.4%). The rest of the patients remained high and tall. The refraction in patients was mostly hypermetropic. 127 (77.9%) eyes showed different levels of complex cataracts, with preoperative visual acuity ranging from 0.01 to 0.8, with an average of 0.31 to 0.09. All patients underwent standard ophthalmological examination both in the preoperative and postoperative period: visometry, ophthalmoscopy, perimetry, a-b scanning for ultrasound, pneumotonometry, ultrabiomicroscopy, autorefractometry.

RESULTS

In hospitalized patients, the angle of the anterior chamber is closed. Prior to surgery, Level 1 of the anterior chamber angle opening was in 91 patients (72.5%), level 2 was in 30 patients (24.8%). According to scanning data, the front-rear axis is from 19.7 to 22 mm, on average 20.5 mm. The restoration of the transparency of the cornea with a high KIB was carried out as follows: the mechanical removal of the epithelium of the cornea was enough to visualize all the stages of the operation. With a high level of intraocular pressure and shallow anterior chamber, gradual decompression of the eyeball was performed, including posterior sclerectomy and drainage of intravitreal fluid from the vitreous body with a special needle. Under the influence of high intraocular pressure, the liquid independently moves along the needle. At the same time, viscoelastic was introduced into the front chamber, which opened the angle of the

front chamber, partially eliminating the pretrabecular eclipse. After intraocular lens implantation in patients under visual control using contact prismatic lenses, pretrabecular retention with viscoelastic-filled microspatula in the anterior chamber was eliminated, to eliminate goniosinexial adhesion throughout the circumference.

CONCLUSION

In patients with primary closed-angle glaucoma, the topographic and anatomical values of the indicators of the anterior segment of the eyeball indicate a significant deviation of all parameters relative to the control group. By implanting a soft and thin IOL, lens removal allows for the normalization of anatomical and topographic relationships in patients' eyes, as confirmed by Gonioscopy data. Examination by the method of Gonioscopy showed an enlarged anterior chamber angle in all eyes after surgery. The degree of pigmentation of the front camera angle remained almost unchanged, the volume and depth of the front camera increased.

REFERENCES

1. Abduazizovich, Y. A., Abdurakhmanovich, B. S., Bakhodirovna, S. D., Batirovich, K. S., Erkinovich, K. R. (2022). Interrelation of functional and anatomical and optical parameters of the eye in congenital myopia. //Web of scientist: international scientific research journal, 3(4), 582-590.
2. Abdurakhmanovich, B. S., Muratovna, K. A., Azizovich, Y. A., Botirovich, K. S. Effectiveness Of Surgical Treatment Of High Myopia By Implantation Of Phakic Intraocular Lenses //European Journal of Molecular Clinical Medicine, 7(03), 2020.
3. Babayev, S.A., Kadirova, A.M., Yusupov, A.A., Bekturdiev, S.S., Sabirova, D.B. Our experience in

- surgical correction of secondary divergent strabismus in children // Viewpoint. East-West, (3), (2016). 124-126.
4. Babayev, S. A., Kadirova, A. M., Sadullayev, A. B., Bekturdiyev, Sh. S., Salahiddinova, F. O., Khamrakulov, S. B. Effectiveness of phacoemulsification surgery with intraocular lens implantation in mature senile cataracts // Physicians' Bulletin, (2017). (3), 23.
 5. Babaev, S. A., Kadirova, A. M., Oripova, E. C. Effectiveness of premilen suture material in the surgery of congenital blepharoptosis // Physician's Bulletin, 20.
 6. Boboev, S. A., Kadirova, A. M., Ismoilov, J. J., Kosimov, R. E., Boboev, S. Experience of transscleral laser photocoagulation of ciliary body in patients with neovascular glaucoma // Volgamedscience (2021). (pp. 430-432).
 7. Doliev, M. N., Tulakova, G. E., Kadyrova, A. M., Yusupov, Z. A., Zhalalova, D. Z. Effectiveness of combined treatment of patients with central serous chorioretinopathy // Bulletin of the Bashkir State Medical University, (2016). (2), 64-66.
 8. Zhalalova, D. Z., Kadirova, A. M., Khamrakulov, S. B. Outcomes of herpetic keratouveitis against the background of treatment with "ophthalmoferon" depending on the immune status of patients // Interdisciplinary approach in diseases of the head and neck, (2021). 103.
 9. Zhalalova, D. Z. Method of combined treatment of diabetic retinopathy // Physician-aspirant, (2009). 37(10), 864-868.
 10. Kadirova, A. M., Boboev, S. A., Khakimova, M. Sh. Early detection and treatment of spasm of accommodation in children // Forum of young scientists, (2021) (5), 191-196.
 11. Kadirova, A. M., Boboev, S. A., Khamrakulov, S. B. (2021). Effectiveness of retinalamin in the treatment of congenital myopia. //Volgamedscience (pp. 429-430).
 12. Kadirova, A. M., Ruziev, T. H., Khamrakulov, S. B. (2019). Long-term results of conjunctival flap autoplasty in patients with pterygoid hymen. Vol. I, 235.
 13. Kadirova A.M., Babayev S.A., Kalandarov F.U., Gaffarov G.K. Efficiency of dacryocystorhinostomy by bicanal intubation of lacrimal cavity with silicone tubular pathways // "On the way of scientific discoveries". Materials of scientific-practical conference of young scientists, April 9, Tashkent highway, 2013, p. 231.
 14. Kadirova A. M., Khamrakulov S. B., Khakimova M. Sh. Treatment of accommodation spasm in children // modern science: current issues and prospects for development. - 2021. - c. 231-236.
 15. Mukhamadiev, R. O., Dekhkanov, T. D., Blinova, S. A., Yusupov, A. A., & Khamidova, F. M. Age features of tear crystallization in healthy individuals // Medical Bulletin, 26.
 16. Mukhamadiev, R. O., Rakhimova, L. D., Kadirova, A. M., Khamidova, F. M. Har hil kouz kasalliklarida kouz yoshleri crystallography // Interdisciplinary approach in diseases of the head and neck, 123.
 17. Sabirova, DB, Yusupov, AA, Iskandarov, SH, Kadyrova, AM, Tulakova, G. E. Clinical evaluation of ozone therapy and cryopexy in patients with herpetic keratitis // Viewpoint. East-West, (2016). (1), 147-149.
 18. Sabirova, D. B., Tulakova, G. E., Ergasheva, D. S. Complex treatment of diabetic maculopathy by peptide bioregulator "Retinalamin" and retinal laser coagulation // Point of View. East-West, (2017). (2), 114-116.
 19. Sabirova, D. B., Iskandarov, Sh. H., Kosimov, R. E., Ergasheva, D. S., & Yusupov, A. A. Improvement of herpetic keratitis treatment using ozone as gas through the glasses of Orion-ci apparatus // Russian

Nationwide Ophthalmological Forum, (2015). 1, 159-163.

20. Sabirova, D. B., Obloyorov, I. H., Hazratova, D. F. Clinical and epidemiological features of spring catarrh and treatment with immunocorrective agents // Scientific Research, (2019).52.
21. Tulakova, G. E., Sabirova, D. B., Khamrakulov, S. B., Ergasheva, D. S. Long-term results of xenoscleroplasty for high degree myopia // Scientific Forum. Siberia, (2018). 4(1), 80-80.
22. Yusupov, A. A., Boboev, S. A., Khamrakulov, S. B., Sabirova, D. B., & Kosimov, R. E. Interrelation of functional and anatomo-optical parameters of the eye in congenital myopia // Voprosy nauki i upravlenii, (2020). № 22 (106)), 44-53.

