



FEATURES OF QUANTITATIVE INDICATORS OF UBM STUDY OF THE STRUCTURES OF THE ANTERIOR SEGMENT OF THE EYE DURING PRIMARY PAOG WITH PUPILLARY BLOCK

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ANNOTATION

UBM study indicators in age and gender in primary PACG were studied according to the mechanism of blocking the anterior chamber angle, which determines not only the increase in IOP, but also the subsequent course and outcome of the disease. On the basis of which the choice of treatment for primary PACG is necessary.

KEYWORDS. *Ultrasound biomicroscopy, primary angle - closure glaucoma , diagnosis , treatment.*

RELEVANCE

In a UBM study, the study population of patients with angle-closure glaucoma was divided into the following groups according to the pathogenetic mechanism of blocking the anterior chamber angle: With pupillary block; with a flat iris; with a vitreolenticular block (malignant glaucoma) and with a shortened anterior chamber angle ("creeping" glaucoma) [1,5]. It was not possible to completely differentiate the mechanism of blockade of the UPC biomicroscopically and gonioscopically. The study of anatomical and topographic relationships of the structures of the anterior segment of the eye with morphometric analysis of linear and angular parameters made it possible to identify differential signs for the diagnosis of intraocular blocks [6, 8]. In the primary angle-closure form of glaucoma, the contributing factor to the increase in intraocular pressure is the complete or partial blocking of the anterior chamber by the root of the iris or due to pupillary block, according to a mechanism that is progressive, which is reflected in the classification of this pathology, which determines the clinical course of the disease. Based on this, there is a need to distribute the contingent of patients suffering from primary closed-angle glaucoma according to the mechanism of blocking the anterior chamber angle [7,9].

PURPOSE OF THE STUDY. To study the indicators and UBM studies in age and gender in primary PACG

MATERIALS AND METHODS OF RESEARCH. In our work, to analyze the morbidity and disability of the population of the Andijan region, statistical research methods were used - absolute and intensive indicators were studied (per 10,000 population). We applied the analytical method in studying the structure of the general incidence of glaucoma, studying risk factors, and a comparative study of frequency indicators (intensity) among various groups of patients (age, gender, social, and other indicators). A total of 6,356

individuals, aged from 20 to 86 years, were studied in the districts of the Andijan region. During the examination of each patient, an individual card was created, which included passport data, general and ophthalmological history, as well as the results of an examination using traditional and special methods for diagnosing glaucoma.

Our ophthalmological examination of residents of the Andijan region, organized by the Andijan State Medical Institute, made it possible to identify a number of diseases of the organ of vision among the examined population, while some patients had two or more eye diseases occurring simultaneously.

RESULTS

The gonioscopy data we obtained for PCOG shows that the number of patients with pupillary block is about 75%, and the second developed stage prevails. Functional blockade most often develops in eyes with relative pupillary block, when the angle of the anterior chamber is closed by the iris root protruding anteriorly. In addition, in eyes with a narrow anterior chamber angle, a sharp apex, or a posterior position of Schlemm's canal, the trabecular zone may be closed by the hilar fold of the iris (Fuchs' fold) when the pupil dilates. In this case, the iris is not protruded, it is flat, the anterior chamber is of medium depth.

Usually in clinical practice it is observed that the course of this form of glaucoma is wavy, attacks are replaced by calm, asymptomatic intervals. As a result of each attack, adhesions remain in the drainage system, subsequently leading to chronically high intraocular pressure and changes in the visual fields characteristic of glaucoma.

UBM studies of patients with angle-closure glaucoma were carried out mainly in early stages I and advanced stages II of the disease. The first group included 103 patients (183 eyes) with a shallow anterior chamber, a convex iris profile, thinning



of the iris in the basal zone, a narrow and closed angle of the anterior chamber, and increased depth of the posterior chamber.

The rear camera had a triangular configuration. This structure corresponded to the picture of the pupillary block.

Table 1. UBM study indicators in genital incision for PCOG with pupillary block in the early stage - I

UBM indicators M±M (mm)		Healthy individuals without visual pathology		PACG with pupillary block in the early stage - I	
		men	women	men	women
1	Anterior chamber depth (mm) from the corneal endothelium to the lens capsule at the optical center	2.79±0.07	2.78±0.05	2.13±0.09	2.14±0.08
2	Anterior chamber angle, degrees	16.62±1.43	16.69±1.26	8.15±1.75	8.16±1.57
3	Thickness of the iris root in the corneal zone 250 µm from the scleral spur	0.397±0.009	0.389±0.008	0.38±0.02	0.39±0.03
4	Trabecula-iris distance from the corneal endothelium to the anterior surface of the iris 500 µm from the scleral spur	0.196±0.009	0.192±0.005	0.107±0.08	0.108±0.07
5	Distance “trabecula-ciliary processes” from the corneal endothelium through the iris 500 µm from the scleral spur	0.698±0.008	0.702±0.004	0.494±0.018	0.492±0.021
6	Position of the ciliary body	average	average	average	average
7	Depth of the anterior chamber of the posterior chamber 500 µm from the scleral spur	0.883±0.008	0.889±0.009	0.474±0.018	0.482±0.017
8	Iris-lens distance	0.31±0.01	0.31±0.02	0.22±0.03	0.22±0.03
9	Rear camera shape	triangular	triangular	triangular	triangular
10	The depth of the posterior chamber (mm) is the distance from the posterior surface of the iris to the first visualized fiber of the zonular ligament.	0.567±0.009	0.564±0.008	0.63±0.03	0.62±0.04

UBM study in the early – 1st stage with PACG with pupillary block is characterized by the following characteristic features:

- The anterior chamber of the CPC is shallow, the depth of the anterior chamber from the corneal endothelium to the lens capsule in the optical center is **2.13 ± 0.09** mm (2.03 – 2.28), and in women - **2.14 ± 0.08** mm (2.09 – 2.23); Anterior chamber angle, degrees – **8.15±1.75** (8.05 – 9.01) and **8.16±1.57** (8.07 – 9.23); The thickness of the iris root in the corneal zone 250 µm from the scleral spur is **0.38±0.02** (0.374 – 0.397) and **0.39±0.03** (0.378 – 0.411); The “trabecula-iris” distance from the corneal endothelium to the anterior surface of the iris 500 µm from the scleral spur is sharply reduced and equal to **0.107±0.08** (0.104-0.109) and **0.108±0.07** (0.103-0.121); The distance “trabecula-ciliary processes” from the corneal endothelium through the iris 500 µm from the scleral spur is **0.494±0.018** (0.481 - 0.498) and **0.492±0.021** (0.485 - 0.497); The depth of the anterior chamber of the posterior chamber is 500 µm from the scleral spur - **0.474±0.018** (0.468 – 0.489) and **0.482±0.017** (0.474 – 0.487); The distance “iris – lens” is 0.31±0.02 and 0.32±0.3, respectively. The shape of the rear camera is the usual triangular.

- Convex profile of the iris;

- Slight thinning of the iris in the root zone;
 - In most cases, narrow and not
 - The depth of the posterior chamber which is closed by the angle of the anterior chamber; cameras are enlarged; c (mm) – distance from the posterior surface of the iris to the first visualized fiber of the zonular ligament – in healthy men 0.563±0.014 (0.537 – 0.578) and 0.562±0.013 (0.527 – 0.577) in women; and in case of PACG with pupillary block in early stage – stage I 0.63±0.03 (0.624 - 0.645) and 0.62±0.04 (0.623 - 0.652) respectively.

-The shape of the rear camera has been changed, it has a triangular configuration.

CONCLUSION

According to this form of PACG in the early stage - 1, the number of patients with pupillary block we studied was 28 people and 43 eyes, most of them were diagnosed with pathology in both eyes.



LITERATURE

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