



MODERN METHODS OF TREATING GLAUCOMA

Kholmatova Yokutkhon Nematillaevna, teacher
Ferghana Medical Institute of Public Health
Uzbekistan, Fergana

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Received:	October 6 th 2022	Most types of glaucoma, including distant open—angle glaucoma, are not treatable. Vision loss due to glaucoma does not recover. Therefore, the best way out is to treat glaucoma before vision loss is detected. Nevertheless, the progression of glaucoma needs to be controlled to prevent the disease from causing even more harm.
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The use of various drops, the selection of drugs; intramuscular, intravenous, and injections (under the eyeball). Each doctor has his own experience in the use of certain drugs, and, accordingly, his own preferences.

You should know that all drugs are categorically not recommended for self-administration. Both dosages and duration of use should be selected strictly individually, depending on the characteristics of the patient. Sometimes it is necessary to use several methods to maintain the stabilization of intraocular pressure.

Modern methods of glaucoma treatment allow not only to stop vision loss, but also to maintain a high standard of living. It is only important to seek medical help in a timely manner. To do this, all people over the age of 40 are recommended to regularly measure intraocular pressure and monitor the condition of the visual organs as a whole.

Of course, pathology cannot always be prevented. If it is already developing, then you need to consult a doctor. He will select the optimal method of treatment of glaucoma of the eyes in accordance with the current condition of the patient, concomitant diseases and other factors.

Let's figure out how to get rid of pathology, what signs to pay attention to in order not to miss the beginning of development, and how to prepare for surgery if it is prescribed by a doctor.

Symptoms of glaucoma

The main signs of pathology include:

- the appearance of rainbow circles around light sources
- pain in the eye
- headaches
- blurred vision
- increase in the size of the eyeball
- narrowing of the visual field (to the center from the periphery)
- excessive eye moisture

- reduction of visual acuity in a short time period

- a feeling of pain in the eyes
- deterioration of vision in semi-darkness

It should be understood that if a person suffers from an open-angle form of the disease, the symptoms may be implicit or absent altogether. Deviations appear gradually. The patient may accidentally discover that he sees much worse with one eye than with the other.

The closed-angle form of the disease manifests itself more clearly. With this pathology, there is a sharp increase in intraocular pressure. This causes more pronounced symptoms: headache, acute discomfort in one of the eyes, its puffiness, decreased vision.

An attack of glaucoma, when immediate medical attention is required, can be distinguished by the following signs:

- acute eye pain that was not provoked by injury, inflammation or other factors
- pain in the forehead and temple area on one side (where the affected eye is located)
- sudden nausea
- heart rate reduction

Also, patients may suffer from vomiting and general discomfort.

Diagnostics

Before starting to choose a method of treatment for glaucoma, the doctor must conduct an examination of the patient.

It includes:

- Fundus examination
- Tonometry (determination of intraocular pressure)
- Perimetry (fixation of visual fields)

If necessary, an ophthalmologist will prescribe and perform other examinations. Today, many of them are conducted using modern technologies and expert-class equipment. This allows you to provide the highest information content and accuracy of



diagnosis, quickly get all the necessary information to identify the disease, determine its form, stage and other features.

Methods of treatment of glaucoma of the eyes

It is necessary to start restoring vision as early as possible. This will save it. It is important to understand that if you do not stop an attack of angle-closure glaucoma within 24 hours, you can go blind!

The treatment of pathology is always aimed at normalizing the pressure in the eye cavity.

To do this, the following methods are used:

1. Special medications. They are available in the form of drops. The selection of funds and the mode of their administration is determined exclusively by the doctor after the examination and on an individual basis

2. Laser therapy. It is performed when the drug treatment is inappropriate or ineffective

3. Surgical intervention. It is also carried out when drugs are ineffective

As a rule, open-angle glaucoma can be treated without surgery. It is enough to choose the right drugs correctly. It is important for the patient to bury them regularly.

Important! Omissions in the use of medicines are fraught with a sharp deterioration of vision.

Laser treatment of glaucoma

Such therapy is prescribed if the drops cannot provide an effective reduction in intraocular pressure or the pathological process has already developed. The main purpose of the intervention is to ensure the normal outflow of intraocular fluid.

The main method of laser treatment of glaucoma is called iridotomy (iridectomy). It is used for open- and closed-angle forms of pathology. In the first case, they supplement therapy with the use of drops. The procedure is aimed at forming new ways of fluid outflow. At the same time, the intervention is low-traumatic and painless for the patient. It is performed on an outpatient basis. As a rule, the procedure does not require complex special training. Manipulations take about 10-15 minutes. The rehabilitation period lasts 5-7 days. At this time, the patient uses drops.

Methods of surgical treatment of glaucoma

They are resorted to in the presence of indications and the ineffectiveness of using other methods of eliminating pathology. The expediency of the intervention is determined exclusively by an ophthalmologist. Previously, he conducts all the necessary examinations.

The main modern methods of surgical treatment of glaucoma include:

- non-penetrating deep sclerectomy (NGSE)
- penetrating type operations with and without drainage

- lens removal

The choice of a certain method of eliminating pathology is carried out by an ophthalmologist. It takes into account the current condition of the patient, the presence of concomitant diseases, the results of the examination, the form of glaucoma and other important factors.

Contraindications to surgery

In some cases, surgical interventions are not performed.

Usually they are postponed when:

• serious concomitant disorders in the organs of vision

- risks of serious complications

• concomitant diseases of various organs and systems

How to prepare for surgery?

Before the intervention, the patient undergoes not only a vision diagnosis. Standard examinations from the so-called hospital complex are also carried out.

These include:

- General blood and urine tests
- Biochemical blood analysis
- Study on the group and Rh factor
- Coagulogram
- Research on infections
- Chest X-ray

The patient is also advised by a therapist. Additionally, before the operation, they can send you to an otolaryngologist and dentist. If the patient has diabetes mellitus, then a consultation with an endocrinologist is mandatory.

As a rule, before the intervention it is necessary to refrain from:

- Alcohol consumption
- Excessive physical exertion (including sports)
- Eye strain. It is necessary to reduce reading to a minimum, work at the computer, replace lenses with glasses

The night before the operation, you should get a good night's sleep. On the day of the intervention, it is necessary to wash your hair in the morning. No need to apply makeup on the face and neck and chest area. It is desirable to wear loose and comfortable clothes made of natural materials. A light breakfast is allowed on the day of the operation.

Important! You need to take sunglasses with you to the clinic. They will be required to protect the eyes after the intervention. If the patient is taking any medications, it is necessary to inform the doctor about them. The specialist will tell you about the peculiarities of their use on the day of the operation and after it. You should be prepared for an additional examination of the organs of vision. It is mandatory



and allows the ophthalmologist to make sure that he is ready for intervention.

Important! The doctor will tell you about all the features of preoperative preparation. This is due to the fact that there are not only general, but also individual recommendations.

Microinvasive techniques continue to improve, displacing the usual trabeculectomy. However, to date, no universal methods have been created that provide a long-term hypotensive effect in all various types of glaucoma. This dictates the need for a constant search for new and modification of previously proposed surgical interventions, the purpose of which is a prolonged reduction, minimization of intra- and postoperative complications and the creation of conditions for the preservation of visual functions.

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