

Glaucoma - signs and symptoms, useful and dangerous products, folk remedies

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Abstract. Glaucoma is a chronic eye disease that can develop at any age, but is especially common among older people. Congenital glaucoma occurs in 1 in 20 thousand newborns, by the age of 45 the incidence of glaucoma is approximately 0.1%, among 50-60 year olds this figure reaches 1.5%, and in the age group 70+ more than 3%.

Unfortunately, glaucoma is incurable; its severe forms lead to irreversible blindness, which gives the disease a social character.

Key words: Glaucoma, description, causes, types and symptoms, complications, prevention, treatment, healthy products, folk remedies, dangerous products

Types of glaucoma

Glaucoma is classified by age:

- **Congenital glaucoma** affects newborns. As a rule, the disease is subject to early diagnosis; immediately after birth it is detected in 60% of patients. Congenital glaucoma can manifest itself in the first months of infancy, and in rare cases much later, several years later;
- **Juvenile glaucoma** is diagnosed in children aged 3 years and up to 35 years;
- **Primary adult glaucoma** is the most common. It is associated with age-related changes in the organs of vision. Its forms are subject to medical classification, on which the treatment regimen depends. Primary glaucoma can manifest itself in open-angle, closed-angle, mixed forms and glaucoma in which intraocular pressure remains within normal limits;
- **Secondary glaucoma in adults** develops as a consequence of previous ophthalmological diseases.

Causes of glaucoma

The causes of congenital glaucoma can be a variety of factors, such as genetic predetermination, as well as embryonic and birth injuries. If the mother suffered infections such as mumps, syphilis, rubella, or polio during pregnancy, this can cause glaucoma in the fetus. Excessive alcohol consumption, poisoning, vitamin deficiency, radiation exposure and abdominal trauma during the embryonic period can also become risk factors.

In adults, the main cause of glaucoma is increased eye pressure, which leads to impaired blood supply to the eyes and deformation of the optic nerve. In addition, the disease provokes high blood pressure, diabetes mellitus, osteochondrosis of the cervical spine, diseases of the immune system, severe myopia and hereditary factors.

The tendency towards a closed-angle shape is more often manifested among representatives of the fair sex. In this case, the anatomical features of the visual organs are of particular importance: the small size of the eye and the large lens.

Secondary glaucoma can be triggered by long-term use of hormonal drugs indicated for bronchial asthma and autoimmune diseases.

Symptoms of glaucoma

Very often, the disease is asymptomatic and does not cause any discomfort until visual acuity deteriorates significantly. As a rule, the patient turns to an ophthalmologist at a late stage of the disease. The insidiousness of the disease lies in the fact that in the early stages there is almost no pain or symptoms.

Elderly people should regularly visit an ophthalmologist and measure intraocular pressure, which is the leading symptom of glaucoma. It is impossible to independently detect changes in intraocular pressure, since the increase occurs gradually and the brain adapts to the changes. Only a small group of people have such manifestations as pain in the eyebrows and forehead, deterioration in vision sharpness, and complaints of the appearance of colored circles when looking at light sources.

Another important symptom is a narrowing of the visual field, which begins from the nasal area, as well as a violation of the eye's rapid adaptation to changes in lighting. A decrease in visual acuity indicates irreversible changes in the morphological structure of the optic nerve, which cannot be restored or treated.

The closed-angle form is quite rare, but is characterized by pronounced symptoms: severe eye pain and headaches, redness of the eye.

Complications of glaucoma

Untimely treatment and diagnosis of glaucoma can provoke acute attacks of the disease, which are fraught with severe visual impairment, including complete blindness. Practical studies show that treatment of glaucoma can only stop and slow down the decline in vision, but cannot restore it.

Prevention of glaucoma

1. regular medical examinations with a therapist and endocrinologist for the timely detection and prevention of diseases that can trigger the development of glaucoma (hypertension [1], hypotension, diabetes mellitus [2], dysfunction of the thyroid gland [3]);
2. systematic visit to the ophthalmologist with mandatory measurement of intraocular pressure;
3. timely treatment of ophthalmological diseases to prevent the development of secondary glaucoma;
4. expectant mothers should take special care to prevent the risk of developing glaucoma in newborns;
5. Do not neglect your own vision test. Self-monitoring is quite simple: close your eyes one by one and compare the sharpness and quality of the picture;

6. make it a rule to regularly do morning exercises with mandatory exercises for the cervical spine. Moderate physical activity stimulates blood supply to the organs of vision;
7. do not lift heavy objects in order not to provoke an increase in IOP;
8. properly formulated diet.

Treatment of glaucoma in official medicine

Unfortunately, it is not yet possible to achieve a complete cure for glaucoma, but it is necessary to monitor and treat it. Having determined the type and stage of glaucoma, the ophthalmologist will prescribe the optimal treatment method, which can be conservative, surgical or laser. Each of these types of treatment is aimed at normalizing intraocular pressure.

Drug treatment tactics involve the use of special anti-glaucoma drops, which not only reduce the level of IOP, but also help improve the blood supply to the internal membranes of the organs of vision. Only an ophthalmologist can select and cancel drops, as well as prescribe an instillation regimen; self-medication for glaucoma can cause irreversible damage to the eyes. In this case, the patient should take into account that antiglaucomatous drugs can have different effects on IOP:

1. intraocular pressure decreases immediately after instillation of drops;
2. IOP decreases slightly, but with regular instillation of the product, its effect increases over time;
3. drops can have the opposite effect and increase IOP levels;
4. it is possible that the patient is resistant to anti-glaucoma drops, in which case the drug does not affect IOP values.

If conservative treatment does not produce results, the ophthalmologist recommends surgery.

Laser operations for the treatment of glaucoma began to be practiced back in the 70s of the last century. Using laser radiation, intraocular blocks that interfere with the outflow of intraocular fluid are removed. Laser surgery has disadvantages and advantages.

Advantages of laser operations:

- relatively low cost of the operation;
- short rehabilitation period;
- there is no need for general anesthesia, local anesthesia is sufficient;
- laser surgery can be performed on an outpatient basis;
- There are no complications typical for traditional glaucoma surgery.

Disadvantages of laser surgery:

- risk of damage to the lens capsule;

- the possibility of damage to the vessels of the iris;
- In the first few hours after surgery, IOP may increase.

The history of glaucoma surgery goes back more than 150 years. Every year existing ones are improved, new methods of antiglaucomatous operations are developed and introduced. The ophthalmologist decides on the surgical treatment of glaucoma (iridectomy), taking into account the general condition of the patient, IOP indicators and the dynamics of clinical data.

The goal of iridectomy is to normalize IOP levels, improve nutrition and tissue metabolism in the optic nerve. As a result of surgical operations, the pressure in the chambers of the eye is equalized by eliminating the pupillary block.

Useful foods for glaucoma

A properly selected diet is important in the treatment of glaucoma. It should include vitamins and microelements that help improve metabolism in the optic nerve. As a rule, the ophthalmologist additionally prescribes a vitamin complex, including vitamins B, A, E and C [4-7], they help slow down the development of the disease.

Recommended Products:

- poultry meat, sea fish, leafy vegetables and vegetable oils are rich in vitamin E;
- Strawberries [8], citrus fruits, red peppers [9], spinach [10], asparagus [11] and beets [12] contain high amounts of vitamin C;
- Apricots [13], bananas [14], raw carrots [15] are a real storehouse of vitamin A.

Patients suffering from glaucoma are recommended to eat fermented milk products, high-quality boiled sausages, cereals, soy products, low-fat fish and meat. It's best to eat small meals frequently so your blood sugar levels remain stable throughout the day. Regular consumption of blueberries significantly reduces the frequency of glaucoma attacks and improves visual acuity.

The attending ophthalmologist will help the patient to correctly prepare a daily diet.

Traditional medicine for glaucoma

Regular use of traditional medicine at the initial stage of the disease gives good results.

- infuse 1 tbsp. crushed duckweed in 1 glass of vodka for 4 days, then drink 20-30 drops three times a day;
- Mix fresh duckweed with honey [16] in a 1:1 ratio, consume the resulting mixture 1 tsp. in the morning and in the evening;
- for 20 days, twice a day, take a glass of water with 0.2 g of mumiyo dissolved in it;
- for 2 weeks, rinse your eyes with aloe extract 5-6 times a day. To prepare it, you need to pour two large leaves with a glass of water and boil for 5 minutes;

- A decoction of dill seeds reduces IOP levels well. 1 tsp seeds, pour 250 g of boiling water and leave for an hour. The resulting decoction is taken 70 - 100 g 3 times a day 30 minutes before meals.
- Patients suffering from glaucoma benefit greatly from compresses made from tincture of nettle leaves [17] and lily of the valley flowers. 0.5 tbsp. nettle and 1 tsp. pour 250 g of cold water over lily of the valley, place in a dark place for 10 hours, then add 0.5 tsp. soda Compresses should be made 2 times a day. The duration of the procedure should be 15-20 minutes.

Dangerous and harmful products for glaucoma

Patients with glaucoma are advised not to drink more than 1.5 liters of fluid per day. It is necessary to minimize the presence of fatty dairy products and easily digestible carbohydrates in the diet. It is necessary to completely exclude the following foods from the diet:

- alcoholic drinks;
- strong coffee and tea;
- semi-finished products;
- canned foods;
- meat broths;
- smoked meats;
- rich pastries.

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Received 04.04.2021

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