

THYROID CYST DISEASE, TREATMENT AND PREVENTION MEASURES

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Abstract. The thyroid gland is an endocrine organ, that is, an organ that produces hormones. It is located almost directly under the skin at the front of the neck. Thyroid hormones (Thyroxine and triiodothyronine) regulate the metabolic process. In addition, the gland produces the hormone calcitonin, which is responsible for controlling calcium metabolism in the body.

Keywords. Thyroid gland, hypothyroidism, hyperthyroidism.

The thyroid gland is an internal secretion gland of humans and animals. The development of the thyroid gland begins during pregnancy, and when a child reaches 1 year of age, its weight is 1-2 G. In the process of growth, it grows larger and reaches 20-22 g. The thyroid gland develops from the epithelium of the embryonic thyroid sac. The thyroid gland is fully formed in 8-9 months of the development of the human embryo and begins to secrete a hormone, which is located on the neck, in the area of the larynx; consists of 2 lobes and a neck. The thyroid gland is supplied with blood by a pair of superior and a pair of inferior arteries, and sympathetic and parasympathetic nerve fibers innervate. It produces the iodine-containing hormone thyroxine (T₄), triiodothyronine (T₃) and calcitonin, which are involved in the regulation of the metabolism of matter and energy in the body. The function of the thyroid gland is controlled by the central nervous system, and its activity is controlled by the pituitary gland.

The thyrotropic hormone of the pituitary gland enhances the function and development of the thyroid gland. The importance of the thyroid gland in the body is enormous, it provides reactions of cranial activity, metabolism, bone growth, immune systems, physical and mental development, sexual maturation processes, adaptation, etc. Violation of the activity of this gland leads to diseases of the thyroid, hypothyroidism, hyperthyroidism, etc. The thyroid-producing hormone calcitonin ensures that excess Ca is removed from the blood and sent to the bones.

Thyroid cyst is a disease characterized by the appearance of fluid-filled nodules. To identify them, doctors initially resort to the method of external examination and palpation. The appearance of cysts resembles a dense node with water.

Regardless of which part of the gland the cyst is located in, the signs are more characteristic in the late stages of the development of the disease. The most noticeable of them is the feeling of the presence of a foreign body in the throat. Such nodes can

also be identified by simple hand-held palpation. Over time, however, in addition to nodes, the following signs begin to manifest:

Breathing difficulties: the cyst puts pressure on the throat and blocks the trachea through it; a feeling of pain in the area where the cyst is located (which can spread to the ear and jaw); discomfort and pain when swallowing; in some cases a change in the timbre of the voice.

Cyst in the thyroid gland or, in other words, nodules in the neck appear for the following reasons: Frequent stress States; disorders of the psychoemotional state; prolonged recovery after a serious illness; burns; hypothermia; hyperthermia; hyperactive thyroid function; increased or decreased production of thyroid hormones by the pituitary.

In addition, the cyst can develop under the influence of downstream factors:

Iodine deficiency; thyroid disease; various poisoning; hormonal background disorders; living in unfavorable environmental conditions; mechanical damage to the thyroid gland; congenital pathologies in limb development and activity; hereditary predisposition.

The diagnosis is made using the following studies: Ultrasound examination; MRI; biopsy — allows you to determine the type of cells, cyst and whether it is of poor or good quality; Stsintigraphy; blood analysis for thyrotropin; pneumography to determine the presence of metastases in other organs.

Treatment of thyroid cyst

If the nodules on the cyst or neck are caused by iodine deficiency and are diagnosed as of good quality, treatment is possible. In addition, it can be ruled out that the cyst can cause serious disorders in the patient's body or lead to an increase in the number of cysts. After the cyst cavity is emptied, special substances are introduced into it that prevent the cyst from drying out and recurrence.

Therapy requires an integrated approach and includes:

Drugs that control hormone levels; agents that relieve inflammation and help normalize metabolism; anti-edema drugs; agents that improve blood circulation; antibiotics to prevent the appearance of bacterial infection.

The operation to remove the thyroid cyst is carried out, as a rule, with the help of laser coagulation. In other words, this method is called local hyperthermia. It is recognized as a new method and is now considered one of the most popular.

In the area where the cyst is located, laser-assisted hyperthermia is produced and, as a result, cell breakdown occurs. The operation takes 5-10 minutes, after which, if necessary, antibodies are introduced. Among the advantages of this practice, the following can be distinguished.

Painless course of the operation; performed on an outpatient basis; non-invasive process; absence of side effects; absence of scars.

If the cyst caused by a hormone production disorder is not treated in time or treatment is carried out incorrectly, then complications of the following manifestations may occur.

Tana haroratining 40 °C gacha ko'tarilishi; Organizm intoksikatsiyasi; Mahalliy limfa tugunlari to'qimalarining ko'payishi; Kista hosil bo'lgan sohada og'riq.

To prevent such a process as the development of cyst cells and, accordingly, its occurrence, the preventive system is resorted to in the following form:

Regularly undergo an endocrinologist's examination; eliminate any pathologies in the thyroid gland; adequate intake of vitamins, minerals and iodine; restriction of exposure to ultraviolet rays.

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