



MORPHOLOGICAL CHANGES IN OVARIES IN HYPOTHYROIDISM

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ABSTRACT: This article deals with significant points about morphological changes in ovaries in hypothyroidism. Moreover, the author highlighted symptoms and cures of the illness.

KEY WORDS: endocrine, low-level laser therapy, subclinical, autoimmune, medium-power laser, metabolism, thyroiditis.

There is no material thing or concept in the world, each of which has its own size and quality. Health is no exception. Nowadays, this issue has been almost solved in medical practice, as health assessment from a medical point of view has become a formality. For example, who defines health as "not only the absence of disease or physical defects in the human body, but also its physical, mental and social state of health." Undoubtedly, not only ordinary people, but also intellectuals cannot form a complete understanding of health from such a definition. Ordinary people consider health as good if a person is able to perform service duties or household chores, and bad when some health problem appears and his condition worsens. It can be seen that both assessment methods cannot accurately express health qualities and correctly assess the level of health.

Hypothyroidism is an extremely common endocrine disorder. Because of the risk of complications affecting the normal function of other organs and systems and the lack of ideal treatment options, clinicians of different specialties take a serious interest in this condition [1]. There is an active ongoing search for novel therapies, some of which are laser-based. Here, priority is given to low-level laser therapy for the correction of subclinical hypothyroidism [2]. High-energy laser techniques ensuring a therapeutic effect in deep tissues are also underway. The thyroid is accessible to laser therapy as it lies close to the skin surface. Laser radiation can modulate its function, promote hormone secretion, improve microcirculation, and stimulate tissue regeneration. These laser effects are successfully exploited in the treatment of hypothyroidism and autoimmune thyroiditis. Some researchers believe that exposure to photons triggers structural changes in the thyroid stroma, affecting the height of the epithelium and the form and shape of follicles. At present, the effect of different energy densities generated by a medium-power laser source on the functional activity of the animal thyroid remains understudied both in healthy animals and those with induced hypothyroidism.

Hypothyroidism happens when the thyroid gland doesn't make enough thyroid hormone. This condition also is called underactive thyroid. Hypothyroidism may not cause noticeable symptoms in its early stages. Over time, hypothyroidism that isn't treated can lead to other health problems, such as high cholesterol and heart problems. Blood tests are used to diagnose hypothyroidism. Treatment with thyroid hormone medicine usually is simple, safe and effective once you and your health care provider find the right dosage for you. The symptoms of hypothyroidism depend on the severity of the condition. Problems tend to

develop slowly, often over several years. At first, you may barely notice the symptoms of hypothyroidism, such as fatigue and weight gain. Or you may think they are just part of getting older. But as your metabolism continues to slow, you may develop more-obvious problems. The most common cause of hypothyroidism in developed nations is a condition called Hashimoto's thyroiditis. This is an autoimmune endocrine disorder that occurs when the thyroid becomes inflamed. When someone has Hashimoto's, their own body essentially begins to attack itself by producing antibodies that try to destroy the thyroid gland.

The thyroid gland is one of the most important organs in our body. Despite its small size and weight (about 20 grams), it is really a vital energy producer. The thyroid gland produces thyroxine and triiodothyronine, without which the body cannot produce energy. This energy is focused on the work of all human systems and organs. The thyroid gland also controls the activity of the heart, the activity of the brain, and the tone of the heart muscles. Hormonal changes occur in women with age - before and after the climax period. Therefore, in such a period, the thyroid gland is very sensitive and quickly reacts to the weakening of the immune system, infectious diseases, iodine deficiency or excess, and stress. As a result of the pathological activation of antibodies that fight against healthy cells, women are more prone to autoimmune diseases as they age. These antibodies also suppress thyroid function. As a result, weakness, memory loss, swelling, weight gain, dry skin, brittle hair, muscle pains and spasms, constipation are observed. The most common form of this disease in the world is endemic measles. This is caused by iodine deficiency. In countries where iodized salt is used, Hashimoto's disease, an alternative name for which is autoimmune thyroiditis, is common. A detailed classification according to the degree of magnification is given by O.V. Nikolaev cited, according to his definition, without the necessary treatment, the disease goes through the following stages:

- ✓ First degree - the thyroid gland is not felt;
- ✓ Second, the thyroid gland is visible;
- ✓ The third is a significant thickening of the neck;
- ✓ The fourth is a change in the shape of the neck;
- ✓ The fifth is a seriously enlarged goiter.

The immune system mistakenly thinks that the thyroid cells are not a part of the body, so it tries to remove them before they can cause damage and illness. The problem is that this causes widespread inflammation, which can result in many different problems. According to Dr. Datis Kharrazian, 90 percent of people with hypothyroidism have Hashimoto's that inflames the thyroid gland over time, but this isn't the only cause of hypothyroidism[3]. A diet low in nutrient-rich foods, especially in iodine and selenium (which are trace minerals crucial for thyroid function), increases the risk for hypothyroid disorders. The thyroid gland needs both selenium and iodine to produce adequate levels of thyroid hormones. These nutrients also play other protective roles in the body. For example: severe selenium deficiency increases the incidence of thyroiditis because it stops activity of a very powerful antioxidant known as glutathione, which normally controls inflammation and fights oxidative stress. Getting on track with a hypothyroidism diet ensures that you get the appropriate amounts of selenium and iodine in your diet. In some rare cases, because the pituitary gland makes a hormone called thyroid-stimulating hormone (TSH) — which controls the levels of hormones being pumped out of the thyroid — a problem with the pituitary gland can cause changes to thyroid function. Hypothyroidism can be classified into the following two types:



- Primary hypothyroidism- A defect in the thyroid gland, resulting in a lack of production of hormones, which is the leading form of hypothyroidism.
- Secondary hypothyroidism- A problem in the pituitary gland, the gland located at the base of the brain that orchestrates the functions of several glands throughout the body, including the thyroid gland, which can result in a deficiency of thyroid hormones.

The outbreak of this disease in the body causes the dysfunction of several of its organs. The most common of these is ovarian dysfunction. When the activity of the sex glands decreases, the patient has a headache, the headaches are long-term, intense, and somewhat incurable, reminding of the pain in neuroses. In most cases, this condition corresponds to the period of climax and leads to menstrual disturbances in women, and to a decrease or loss of sexual desire (impotence) in men. During this period, most of the patients complain of throbbing headache, general malaise, feeling hot or cold, loss of sleep and appetite (in women, on the contrary, malaise), agitation. Uncomplicated forms of climax usually go like this. If the climax is accompanied by atherosclerosis or hypertension, the headache will be very severe. In such patients, memory loss, loss of attention, tingling of hands and feet, and ringing in the ears are also added. Pain that occurs when endocrine glands are disturbed should be treated by an endocrinologist.

In conclusion, it should be noted that according to experts, 40-50% of the population's health depends on lifestyle. Harmful habits, improper diet, excessive consumption of alcohol and tobacco, sitting a lot, stress, pollution of the environment lead to various diseases (cardiovascular and respiratory system diseases, gastrointestinal it is known to cause intestinal function disorders and so on. Therefore, lifestyle is considered as the basis of health. The level of health can be determined using simple parameters such as body weight, vital capacity of the lungs, frequency of heart contractions, blood pressure, time taken for the heartbeat to recover after a standard test, and HR. The structural elements of health include information about a person's physical and functional fitness. Health care and strengthening means physical development, improvement of body structure, physical and functional readiness. Improving health can be achieved through regular physical training. Abu Ali ibn Sina is one of the founders of the science of health. He paid great attention to the prevention and treatment of diseases, as well as health care. He has repeatedly noted that regular exercise is a powerful factor in staying healthy.

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