

Fibrocystic disease
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According to the WHO definition, mastopathy is a fibrocystic disease (FCD), characterized by a violation of the ratio of the epithelial and connective tissue components, a wide range of proliferative and regressive changes in breast tissue. Mastopathy is a polyetiological disease.

As a rule, a variety of internal and external factors, accumulating in the body, cause the appearance of nodes and cysts in the mammary glands. However, all the reasons for the development of FCB can be combined according to a common feature, which directly or indirectly leads to an imbalance of sex hormones in the female body. The regulation of the reproductive function is carried out by a single functional neuroendocrine system, in which 5 links are distinguished, interacting according to the principle of direct and reverse negative and positive relationships. The leading role in the activity of neuroendocrine systems is assigned to negative feedbacks.

The highest level of regulation of the reproductive system is the higher parts of the nervous system: the amygdala, hippocampus, and some hypoghalamic structures. They affect the function of the hypothalamus and pituitary gland through neurotransmitters (catecholamine, serotonin, acetylcholine, GABA, enkephalins). Thus, an increase in the level of these biogenic amines leads to the development of amenorrhea of central origin, polycystic ovary syndrome, Itsenko-Cushing's disease, hirsutism, and obesity. All of the above conditions are accompanied by FKB.

The second level of regulation of reproductive function is the hypothalamus. All 10 liberins and statins are involved in the regulation of reproductive function, interacting with each other. We especially note thyroliberin, on the secretion of which TSH depends. Tiroliberin in some situations also stimulates the production of prolactin, a hormone produced by the pituitary gland that stimulates the development of the mammary glands and the formation of milk.

The third level of regulation is the pituitary gland. It produces tropic hormones of the peripheral endocrine glands (FSH, LH, PRL, TSH, ACTH). Gonadotropins, interacting with each other, affect the function of the ovaries. FSH stimulates the growth and formation of follicles and their secretion of estrogen. The formation and activity of the corpus luteum is controlled by LH and prolactin. The latter is also responsible for the formation of the mammary glands and lactation. The higher the concentration of estrogen and prolactin in the blood, the more breast cells will be stimulated to divide.

Peripheral endocrine organs (ovaries, thyroid, adrenal glands) represent the 4th level of regulation of reproductive function. The main role belongs to the ovaries. In the first phase of the menstrual cycle, the ovaries produce estradiol, which causes proliferative changes in the mammary glands. And the inadequacy of the second phase creates good conditions for the development of the FCB. The influence of the adrenal glands on the regulation of reproductive function is carried out through the hormones of their cortex and medulla. It is known that various disorders of corticosteroid metabolism lead to pathology

ovarian function and cause many gynecological diseases. The role of the thyroid gland in the regulation of reproductive function is seen in its disorders such as hyper- and hypothyroidism. With a deficiency of thyroid hormones, the biosynthesis of FSH and LH decreases, but the synthesis of TSH and prolactin in the pituitary gland increases.

The fifth level of reproduction is the target organs: genitals and mammary glands, adipose tissue, bones, skin. Sex steroid hormones realize their effect in them. The cells of these tissues and organs have specific receptors for estrogen and progesterone. In case of a malfunction in the regulation of the reproductive function by the neuroendocrine system, a hormonal imbalance occurs, which leads to an increase in the connective tissue component in the mammary gland.

Types of hormonal imbalances:

1. There is a lot of estrogen, progesterone is normal or low. Occurs when:

- polycystic ovary,
- hypothalamic obesity,
- liver diseases.

The reason is a violation of the metabolism of estrogen in the liver. With the intact production of estrogen by the ovaries, a state of hyperestrogenemia occurs due to hormones not utilized by the liver. In this case, the level of progesterone may remain the same.

2. Estrogen levels are normal, but progesterone levels are low.

3. The level of estrogen is lowered, the level of progesterone is minimal. 2 and 3 points are found when:

- ovarian failure;
- primary ovarian hypofunction - depleted ovarian syndrome occurs at the age of 35–38, in women with normal menstrual and generative functions in the past;
- resistant ovary syndrome - occurs with prolonged use of oral contraceptives;

- various lesions of the ovaries (chemotherapy, radiation, inflammation, tumors),
- secondary ovarian hypofunction;
- isolated hypogonadotropic ovarian hypofunction (may be congenital or acquired);
- functional nature of disorders of the hypothalamic-pituitary system (stress, anorexia nervosa);
- organic nature of lesions of the hypothalamic-pituitary system (tumors of the hypothalamus, third ventricle, infectious inflammatory lesions, circulatory disorders, trauma).

4. Prolactinemia with:

- prolactinoma (formation in the anterior lobe of the pituitary gland),
- diseases of the thyroid gland (thyroiditis, hypo- and hyperthyroidism).

Another cause of hormone imbalance is also associated with the involvement of the hepatobiliary system and the pancreas. For the synthesis of sex hormones (which are steroid), some fat-soluble substances are required. In case of insufficient bile secretion, as well as changes in the properties of bile, or a lack of lipase produced by the pancreas, the assimilation of essential fat-soluble

substances (including vitamins: A, K, D, E) in the small intestine. Thus, such diseases as: chronic cholecystitis, hepatitis, various hepatosis, chronic pancreatitis can lead to a violation of the synthesis of sex hormones and, as a consequence, to the development of mastopathy.

Therefore, an integral part of the treatment of mastopathy in our center is the correction of the state of the hepatobiliary system and pancreas. Which includes:

1. Cleansing the liver in a hospital according to the method of O.I. Eliseeva (in the case no contraindications).

2. Selection of food products using the ART method.

3. Use of drainages from ONOM, Heel, Receweg and others sero-immunes along the meridians of the liver, gallbladder, pancreas.

4. Elimination of toxic loads (Intox) of the liver, pancreas glands.

5. Use of sorbents Polyphepan, Enterosgel (10-14 days), plus correction of intestinal dysbiosis with drugs Normoflorin, Fervital.

6. Endogenous BRT in combination with RFT using the "erase-subtraction" method with by recording the patient's electromagnetic field through the UMT "inductor", location in the area of the mammary glands.

This technique was used to treat 18 patients with diagnosis: Fibrocystic mastopathy. The course of treatment was about three months. As a result of treatment, according to objective data (examination, ultrasound examination, mammography), no symptoms of mastopathy were detected in 12 patients, in 6 patients there was a decrease in pathological changes in the tissues of the mammary glands and subjective complaints disappeared.

Thus, this approach can be considered quite effective in the treatment of fibrocystic mastopathy.
