

Histology

Laboratory of Histology

All currently existing body examinations are performed using many techniques (ultrasound, various surveys, the delivery of a large number of analyzes). Almost all types of survey give only approximate and not always the correct result. There is one most accurate modern way of detecting pathologies.

What is histology?

Histological examination is a collection of tissues and their thorough analysis for the purpose of oncology detection.

The cells of any alien body in the organism differ in a specific structure. To detect these particles in the tissue samples, microscopic scraps are performed and studied using special equipment.

Histology is a unique technique, because only it gives a chance to achieve the most accurate results, recognizing the disease at an early stage of development.

Goals and tasks of histology in medicine

There is a common histology - the science of the tissues of the body, dealing with a detailed study of their properties, structure, functions and interaction. The branch of this doctrine is a private microscopic anatomy, which examines each organ and its composition separately. Histology is also classified into normal and pathological types. The first is an analysis of the tissues of a healthy organism, and the second one is concerned with the study of their physiological and morphological transformations, which are associated with various diseases. The main tasks of histological activity are:

- Correct diagnosis in disputed situations;
- detailed analysis of the rate of development of malignant tumor;
- Detection of oncology in the early stages of formation;
- research of transformations occurring in the patient's tissues during therapy;
- Diagnostics of the studied pathologies;
- Definition of growth and distribution of cancer cells.

Scope of application

Histology provides invaluable help in confirming or refuting inflammation in the tissues. Yet this unique kind of analysis gives a chance to accurately detect malignant education, which promotes timely and only correct treatment, taking

into account the type of tumor. Histological examination is used not only in gynecology, but also in many other areas of medicine.

In gynecology

What is histology in gynecology? A laboratory test procedure is often prescribed by a physician for the diagnosis of dangerous female diseases and their timely therapy. Gynecological histological analysis is carried out by studying a piece of tissue. Materials for histology are taken from the ovaries, the uterus and its neck, the uterine mucous membrane (endometrium), the cervical canal, the formations in the vagina, and so on. A woman is sent to the histology in the presence of the following deviations:

- Prolonged bleeding time;
- Abortion (fading, miscarriage);
- pain in the lower abdomen that constantly make itself felt;
- the probability of an overgrowth of the adenoma or other benign tumor of the mammary gland in cancer;
- emergence of tumors (polyps, cysts) on internal or external genital organs;
- suspicion of the focus of the inflammatory process (dysplasia, erosion) or oncology formation in the uterus, ovary, vagina;
- biopsy and tissue analysis after surgery (scrubbing, hysteroscopy, removal of alien formations or organs entirely).

In other areas of medicine

Tissue tracing and their careful study are very important in many medical fields. Everyone who has a suspicion of the formation of oncological formations, for example, in the endocrine system or the gastrointestinal tract, must necessarily undergo a histological examination. Such a modern and accurate technique is used in such areas as:

- Endocrinology (thyroid gland biopsy, adrenal glands, and so on);
- dermatology (histology in tumors on the skin, deep mycosis, reticulosis and other diseases);
- Otolaryngology (collection of specimens in the throat, ears, nasal cavity);
- Gastroenterology (examination of liver, stomach and pancreas, esophagus, colon, intestines, mucous membranes of these organs);
- Hematology (biopsy of the bone marrow, lymph nodes);
- Nephrology (renal tissue analysis);

- urology (collection of material for the detection of pathology of the prostate, testicles, bladder).

Histological analysis

Detailed examination of tissues of organs, cells is a histological analysis. The type of detection of dangerous pathologies is closely linked to embryology (fetal structure studies) and cytology (the study of living cells). Histologic analysis allows to detect various deviations in any tissue of the body, most often histology occurs within 8-10 days after the biopsy, and an urgent diagnosis is sometimes required. In this case, the histological procedure is performed directly in the operating room.

Biopsy

The tissues for histology are collected using a special technique - a biopsy. In other words, the patient will be taken a microscopic sample of tissue (biopsy). It is examined using special equipment. What is a biopsy in the revealed sense of how it is performed? The material harvesting procedure is carried out with the help of a long, thin needle that is intended for intramuscular use.