

## **MODERN METHODS OF DIAGNOSIS OF BREAST CANCER IN WOMEN**

**Breast cancer** is a malignant tumor of the glandular tissue of the breast, which is considered the most common form of cancer in the world, for it affects one of every 13 women aged from 13 up to 90 years old during life time It is also the second most common disease of its kind after lung cancer in overall statistics (including the male population) [1, p. 1].

In Ukraine, as well as in the majority of the countries of the world, breast cancer ranks 1<sup>st</sup> in the structure of cancer morbidity and mortality from malignant neoplasms in women. The incidence of breast cancer in our country increases annually by 1-2%; 6,500 new cases are diagnosed every year [6, p. 1].

**Risk factors for breast cancer** can be grouped into 4 main categories: family history (hereditary cancer); reproductive (endocrine system malfunctions); environmental and lifestyle risk factors (radiation, electromagnetic fields, pollution, environmental contamination); breast tissue pathology.

The tumor more often develops from epithelial cells of the ducts and/or lobes of the breast parenchyma. With age the number of cases of breast cancer gradually increases. [16, p. 1].

The insidiousness of breast cancer, like many other types of malignancy, is that in the early stages, when treatment is most effective, the disease is asymptomatic. The general state of health remains normal, and the woman may not be aware of any potential health issues.

### **Breast cancer symptoms include:**

- Formation in the chest, which is tactilely different from the surrounding tissues;
- Bloody discharge from the nipple;
- Changes in the shape and/or size of the breasts;
- Crusts, scales on the nipple and halo;
- The nipple, which previously looked normal, becomes sunken.

There is a type of breast cancer with atypical symptoms. It is an inflammatory breast disease of the corresponding category that causes thickening and swelling of the skin, change in its color (from normal to red/light red) and local temperature (from tactilely warm to hot) and may resemble a lemon peel in texture. The breast enlarges and looks inflamed. The affected individual is recommended to see the doctor if any alike breast alterations or seals are noticed [9, p. 1].

**Diagnosis of breast cancer** consists of 2 stages: primary and refined. The primary one includes visual and tactile self-examination and/or examination by doctors/ qualified specialties. A detailed history of disease and important life-related factor is composed, which is substantiated by examination and palpation. The following factors are crucial for medical history and related data collection:

- Sustained and concomitant diseases of the liver, thyroid gland, genitals and other organs and systems, which can cause a number of hormonal disorders in the body and cause tumors in the mammary glands

- Gynecological and reproductive history
- Sexual function
- Socio-domestic characteristics and professional factors

Heredity

Thus, the initial diagnosis of clinical forms of breast cancer during careful and precise interpretation of the detected changes, allows most patients with common forms of the disease to make a correct diagnosis. But in the initial forms of the disease, clinical assessment of the nature of the pathological process in the breast is difficult. In this case, the doctor comes to the aid of instrumental and laboratory methods of research, i.e. the diagnosis is clarified [6, p. 1],

- Mammography is performed on a MAMMOMAT Revelation mammogram by Siemens – one of the best and most accurate in the world. The procedure is painless, and the results are interpreted by radiologists of the highest category with specialization in mammology and mammography.

- Fine-needle aspiration and thick-needle breast biopsy under ultrasound control and/or stereotactic biopsy under mammography control are performed.

- High-quality CT and MRI are used to assess the prevalence of the disease.

- There is a specialized pathohistological center for the study of tumor samples and the establishment of the final (morphological) diagnosis and choice of treatment tactics.

- The necessary tests are performed in the laboratory, including the determination of the level of hormones and specific tumor markers [2, p. 1].

## REFERENCES

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