СОВРЕМЕННЫЕ ПОДХОДЫ К ЛЕЧЕНИЮ РАКА МОЛОЧНОЙ ЖЕЛЕЗЫ: ОТ ДИАГНОСТИКИ К ТЕРАПЕВТИЧЕСКИМ СТРАТЕГИЯМ

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Аннотация: *Рак молочной железы является одним из наиболее распространенных и агрессивных видов рака у женщин. За последние десятилетия были достигнуты значительные успехи в ранней диагностике и лечении этого заболевания. В статье рассматриваются современные методы диагностики, такие как маммография, ультразвуковое исследование, магнитно-резонансная томография и молекулярно-генетические тесты. Особое внимание уделено различным терапевтическим подходам, включая хирургию, химиотерапию, радиотерапию и таргетную терапию, а также роли иммунотерапии и гормональной терапии. В статье также обсуждаются перспективы и проблемы в лечении рака молочной железы, включая проблемы резистентности к терапии и возможные пути их решения.*

Ключевые слова: *Рак молочной железы, диагностика, химиотерапия, таргетная терапия, иммунотерапия, молекулярно-генетическое тестирование, лечение, хирургия, прогноз.*

MODERN APPROACHES TO TREATMENT CANCER OF THE MAMMARY GLAND: FROM DIAGNOSTICS TO THERAPEUTIC STRATEGIES

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Abstract: *Breast cancer is one of the most common and aggressive types of cancer in women. In recent decades, significant successes were achieved in the early diagnosis and treatment of this disease. The article discusses modern diagnostic methods such as mammography, ultrasound, magnetic resonance imaging, and molecular genetic tests. Special attention is given to various therapeutic approaches, including surgery, chemotherapy, radiotherapy, and targeted therapy, as well as the role of immunotherapy and hormonal therapy. The article also discusses the prospects and challenges in the treatment of breast cancer, including the problems of resistance to therapy and possible solutions.*

Key words: *Breast cancer, diagnostics, chemotherapy, targeted therapy, immunotherapy, molecular genetic testing, treatment, surgery, prognosis.*

Introduction:

Breast cancer (BC) is a malignant neoplasm that develops from cells in the mammary gland. The incidence of breast cancer has continued to rise in recent decades, despite significant advances in diagnostics and therapy. This type of cancer is one of the leading causes of death among women worldwide. However, progress in areas of early diagnostics and treatments,

Including modern methods of chemotherapy, targeted therapy, and immunotherapy significantly increased patient survival.

The main task of modern research and clinical practice is to optimize diagnostic methods and develop individualized therapeutic strategies, which allows not only to improve the effectiveness of treatment but also to improve the quality of life of patients. This article examines modern approaches to the diagnosis and treatment of breast cancer, including the latest developments and prospects in this area.

Materials and methods:

This study used data from large clinical trials, international guidelines for the treatment of breast cancer, and the results of molecular genetic studies that allow

us to identify key molecular and genetic markers that influence disease progression and response to therapy.

1. Diagnostics:

Mammography: used for early detection of malignant neoplasms; allows detection of tumors at early stages.

Ultrasound examination: used to clarify the nature of the tumor and assess the condition of surrounding tissues.

Magnetic resonance imaging allows you to accurately assess the size of the tumor and the extent of its spread.

Molecular genetic testing: used to detect mutations in genes such as BRCA1 and BRCA2, as well as to assess the expression of hormone receptors and HER2/neu.

Therapy: the main treatment for early-stage diseases, including mastectomy and orand-preserving operations. Chemotherapy isis used in more late stages, alsso djuvant therapy to reduce the risk of recurrence. Radiation therapy: applies after surgical interventions to destroy remaining cancer cells.

Targeted therapy: aimed at blocking molecular targets that promote cancer cell growth, including HER2 inhibitors.

Immunotherapy: a new approach to treatment, directed at the activation of the immune system to fight cancer cells.

Hormone therapy is therapy used for treatments of hormone-dependent tumors (for example, with expression of estrogen receptors).

Results and discussions:

Modern diagnostics of breast cancer allow for the detection of tumors at early stages, which significantly improves the prognosis and survival of patients. Mammography remains the gold standard for screening, but the use of MRI and ultrasound helps in clarifying the diagnosis and planning treatment.

In recent years, significant progress was achieved in areas of targeted therapy and immunotherapy. Targeted drugs such as trastuzumab have proven effective in treating HER2-positive tumors. Immunotherapy, including checkpoint inhibitors, has also shown promise in clinical trials, especially when combined with other treatments.

Hormonal therapy remains a key element in the treatment of hormone-dependent tumors. Drugs such as tamoxifen and aromatase inhibitors effectively reduce the risk of recurrence and metastasis.

Chemotherapy still plays an important role in late-stage disease and V combinations with other methods. However, in the long term

Side effects such as weakening of the immune system and development of resistance are possible with use.

Conclusions:

Modern methods of diagnosing cancer in dairy glands allow the disease to be detected at earlier stages, significantly increasing the chances of successful treatment and survival.

Targeted therapy and immunotherapy open new horizons in the treatment of breast cancer, providing a more precise effect on cancer cells with minimal side effects.

Hormonal therapy and chemotherapy remain important treatment elements, but their use should be individualized for each patient.

Prospects for breast cancer treatment include further development of molecular genetic testing and the creation of new therapeutic strategies aimed at improving the quality of life of patients and increasing their life expectancy.

Bibliography :

1. Kaprin , A. D., Old, E. M. Cancer dairy glands: diagnostics And treatment.

— M.: Medicine, 2020. — 432 With.

2. Trapeznikov, N. N., Poddubnaya , I. V. Oncology. National leadership. - M.: GEOTAR-Media, 2021. - 784 p.

3. Cardoso, F., Kyriakides , S., et al. Early breast cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment, and follow-up. // Annals of Oncology. — 2022.

— Vol . 33, No. 1. — P. 10–31.

4. Harbeck , N., Penault-Llorca , F., et al. Breast cancer. // Nature Reviews Disease Primers. — 2019. — Vol. 5, No. 1. - Article 66.