

THE ROLE AND SIGNIFICANCE OF CHEMOTHERAPY IN MEDICINE

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Relevance. According to the latest statistical data from the Global Cancer Observatory (GLOBOCAN), in 2020, 19,292,789 new cases of malignant neoplasms and 9,958,133 deaths were registered worldwide. Prognostic calculations indicate that within the next five years, the total number of newly diagnosed cancer cases will reach 50,550,287, which confirms the extreme importance of oncological pathology as one of the most serious global health problems and also demonstrates the increasing dynamics of its spread.

Oncological diseases occupy one of the leading positions among the causes of morbidity and mortality in the population and represent one of the most serious medical and social challenges of modern times. For centuries, physicians and researchers from various countries have been searching for ways to prevent and effectively treat this pathology [1]. The introduction of advanced diagnostic technologies now makes it possible to detect tumors at early stages, which significantly increases the effectiveness of both therapeutic and surgical methods of treatment [2].

A special place in oncological practice belongs to chemotherapy, which is one of the key approaches in the complex treatment of malignant neoplasms. Despite ongoing scientific debates regarding its side effects, this method in many cases ensures a high level of tumor regression and contributes to the improvement of both quality of life and survival of patients [3].

Main content. Chemotherapy is rightfully considered one of the leading methods of cancer treatment in modern clinical practice. It has the potential to suppress tumor cell growth, induce apoptosis and necrosis, and reduce the volume of primary and metastatic lesions. Furthermore, the use of chemotherapy in the preoperative setting can significantly decrease tumor size, thereby facilitating surgical intervention and increasing its radicality.

Conclusion. Thus, numerous clinical and experimental studies confirm that chemotherapy remains a highly effective and indispensable approach in oncology, playing a pivotal role in comprehensive protocols for the treatment of malignant neoplasms.

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