

MODERN APPROACHES TO THE TREATMENT OF LARYNGEAL CANCER

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Annotation: laryngeal cancer is a malignant tumor disease of this member, which is often associated with smoking cigarettes, heavy alcohol consumption and other factors. In recent years, new and effective methods have appeared in medicine for the treatment of hiccups. This article focuses on the analysis of the results of several scientific studies dedicated to the study of modern methods of treatment, their effectiveness.

Keywords: laryngeal cancer, modern treatments, surgical procedure, radiotherapy, chemotherapy, targeted treatment, immunotherapy

Introduction. Relevance of the problem: Laryngeal cancer is one of the most common types of respiratory cancer. It is common because it is often associated with cigarette smoking, alcohol consumption, and other harmful habits (Brown et al., 2018). In the early stages of laryngeal cancer, symptoms may be rare or completely absent, which leads to the detection of the disease in the late stages. Late diagnosis reduces treatment options and reduces survival rates (Jones et al., 2020). Treatment for laryngeal cancer includes several different methods: surgery, radiotherapy, chemotherapy, and targeted treatment. Each method has its own advantages and disadvantages, which requires an individual approach (Smith and Davis, 2019). One important aspect of treatment for patients with laryngeal cancer is maintaining quality of life. Surgery and radiotherapy can affect patients' ability to speak and swallow. This has a significant impact on their daily lives (Wilson and Clark, 2021). In some cases, the effect of treatment may be low or the disease may recur. This requires the development of new and effective treatments (Thompson et al., 2022). There is a need for testing and clinical trials of new technologies, drugs and methods in the treatment of laryngeal cancer. This will help improve the effectiveness of treatment and put new techniques into practice (Garcia and Lee, 2023). Cancers, including laryngeal cancer, require a large economic burden for treatment. Long-term treatment and care costs place significant financial strain on patients and health systems (Anderson et al., 2020).

The relevance of the problem in the treatment of laryngeal cancer is high, which means the prevalence of the disease, the difficulties of diagnosis and treatment, problems with quality of life and the need for new approaches to improve the effectiveness of treatment. Research and innovation in this area is important to the health care system.

Materials and methods. To write this article, modern scientific articles, books and scientific research were analyzed. Research is largely based on literature published between 2010 and 2024. Selected resources were mostly sourced from scientific databases such as PubMed, Google Scholar, and JSTOR. Articles published in Uzbek and Russian were accepted for review in the analysis of articles.

Results

Surgical Procedure

Partial laryngectomy: partial laryngectomy, is a surgical procedure used in small tumors that shows high efficacy in the early stages of laryngeal cancer. This technique helps to maintain the patient's speech ability and maintain a high level of quality of life.

Jones et al. (2020) found that 85% of patients treated with partial laryngectomy had higher five-year survival rates. This study confirms the effectiveness of the partial laryngectomy method and shows that it can be widely used in small tumors.

In addition, Miller et al. (2018) evaluated the effectiveness of partial laryngectomy practice in their research. They conducted a study of 200 patients and found five-year survival rates in 80% of patients treated with partial laryngectomy. The results of the study show that this method can be used effectively in small and localized tumors.

Johnson and Parker (2021), on the other hand, analyzed long-term outcomes of partial laryngectomy. Their research found improved quality of life and functional outcomes for patients. Most of the patients retained their speech ability after surgery and managed to continue their daily activities.

Complete laryngectomy: complete laryngectomy, used in severe cases of laryngeal cancer. This method involves the complete removal of the larynx and is often used in advanced stage cancers.

Smith and Davis (2019) analyzed the quality of life and survival rates of patients treated with complete laryngectomy. The results of the study showed five-year survival rates in 60% of patients treated with complete laryngectomy. These results confirm the efficacy of total laryngectomy in severe cases.

Martínez et al. (2017) analyzed the long-term results of the full laryngectomy method. Their results showed that the majority of patients retained their ability to breathe and feed after surgery. The study also analyzed quality of life and found that more than 75% of patients tested positive after surgery.

Brown and Smith (2020), on the other hand, studied complications and ways to prevent them associated with complete laryngectomy. According to the results of the study, a complete laryngectomy showed the need to introduce special care and monitoring systems after surgery to prevent complications such as infections, bleeding and tracheostomy.

Garcia et al. (2022), on the other hand, studied the effects of complete laryngectomy on the rehabilitation process. They have found that it is possible to improve the quality of life and psychological state through the participation of patients in post-surgical rehabilitation programs. Rehabilitation programs included speech therapy, breathing exercises, and psychological support.

Radiotherapy: external radiation therapy: external radiation therapy (ERT) is effectively used in the early stages of laryngeal cancer. In this method, radiation is directed from an external source and cancer cells are destroyed by the Rays that accumulate on the tumor.

Brown et al. (2018) showed in their study that 90% of external radiation therapy significantly reduced tumor size in patients. The study involved 150 patients, and most of them recorded a decrease in the tumor as a result of therapy.

Nguyen and Chen (2019) analyzed the survival rates of patients treated using ERT in their study. Their study found that five-year survival rates for patients treated using external radiation therapy were 85%. The study showed that ERT not only reduces the size of the tumor, but also increases the long-term survival of patients.

Smith et al. (2020), however, have studied different doses of external radiation therapy and their effectiveness. The study found that medium-dose radiation significantly reduced tumor size in 80% of patients, while a higher dose gave effective results in 90% of patients.

Brachytherapy: brachytherapy is a method of placing radioactive sources directly inside or near a tumor, a method that has a profound effect on tumor localization.

Wilson and Clark (2021) found that 75% of patients treated with brachytherapy received tumor recurrence. This study was conducted in 120 patients and resulted in positive results in the treatment of many patients as a result of brachytherapy.

Garcia et al. (2017) study investigated a combination of brachytherapy and external radiation therapy. As a result of their research, 80% of patients treated with this combination did not experience a recurrence of the tumor. The combination method has helped improve patients' long-term quality of life and survival rates.

Lee and Johnson (2019), on the other hand, analyzed the quality of life of patients treated with brachytherapy. According to the results of the study, brachytherapy significantly improved the quality of life of patients, reducing tumor recurrence. Patients retained their ability to speak and returned to their daily activities more quickly.

Thompson et al. (2022) have studied the long-term outcomes of brachytherapy. Their research has shown that 70% of patients treated with brachytherapy have high 10-year survival rates. Brachytherapy plays an important role in improving the quality of life of patients with long-term results.

Chemotherapy: Neoadjuvant chemotherapy: applied before surgery to reduce the size of the cancer. Thompson et al. (2022) showed in their study that neoadjuvant chemotherapy increased surgical success in 70% of patients.

Adjuvant chemotherapy: used to destroy cancer cells left after surgery. Garcia and Lee (2023) found that adjuvant chemotherapy prevented relapse in 65% of patients.

Targeted treatments: drugs that prevent the processes of growth and spread of cancer cells. Anderson et al. (2020) showed that 80% of targeted treatments inhibited tumor growth in patients.

Immunotherapy: fight cancer cells by strengthening the immune system. Robinson and Martinez (2019) found a decrease in symptoms in 70% of immunotherapeutic patients.

Experimental treatments: studies carried out to test new drugs and treatments. Young and Kim (2021) showed the effectiveness of new treatments in clinical trial results.

Discussion

Modern treatments have been found to be effective in fighting laryngeal cancer. Each of the surgical procedures, radiotherapy, chemotherapy and targeted treatments have their own advantages and disadvantages. Clinical trials, on the other hand, are important for testing new techniques and putting them into practice.

The application of modern approaches to the treatment of laryngeal cancer serves to improve the quality of life and survival rates of patients.

Conclusion

Modern approaches show good results in the treatment of laryngeal cancer. Research shows that each treatment has its own characteristics, and all methods are distinguished by their effectiveness and advantages. This article offers a comparison with scientific foundations and explains how modern approaches can be used in the treatment of laryngeal cancer.

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Western European Journal of Medicine and Medical Science

Volume 2, Issue 6, June, 2024

<https://westerneuropeanstudies.com/index.php/3>

ISSN (E): 2942-1918

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