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EARLY DETECTION OF CANCER

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Abstract: "From 65 years old " increased in people cancer disease danger noticeable at the level exceed ". Both women and men infected with the human papillomavirus are at high risk of developing cancer. Smoking and obesity are also major causes of cancer. The risk of developing this disease and the mortality rate are higher in men than in women." This article describes the treatment methods, surgical interventions, chemotherapy, and radiotherapy in the treatment of cancer.

Keywords: surgical interventions, use of chemotherapy, radiotherapy treatments, Cancer - simple cells, Early stage of the tumor, Palliative operations, Reconstructive surgery.

Cancer is a complex disease associated with the uncontrolled growth and spread of cells. It is one of the leading causes of death worldwide and continues to be a pressing problem in Uzbekistan. In this article, we will provide detailed information about cancer treatment methods and measures being taken in our country. In 2020, according to the World Health Organization (WHO), approximately 19.3 million people worldwide were diagnosed with cancer. This number is growing every year, so the current statistics may be higher. Given the different types and effects of cancer, as well as regional differences, accurate data on the prevalence of the disease may vary.

Research methods and materials. Cancer is characterized by the uncontrolled growth of normal cells and their spread to various tissues and organs. This process often leads to the late stages of the disease. There are many types of cancer, which have different symptoms and require different treatment methods.

Treatment methods:

1. Surgery. Surgery is the oldest and most effective method of treating cancer. Removing the tumor, if detected at an early stage, is a promising option for many patients. Surgery plays a key role in stopping the spread of cancer.

Surgical interventions are divided into many types:

1. Initial surgery: Removal of the tumor when it is detected at an early stage. This method allows for complete eradication of the disease.

2. Reconstructive surgery: The restoration of an organ or tissue after the removal of a tumor. This technique is used, for example, after treatment for breast cancer.

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3. Palliative surgery: Performed in the terminal stage of cancer, aimed at improving the patient's quality of life and reducing pain. The surgical procedure usually consists of the following steps:

1. Patient preparation: Before the surgical intervention, the patient is discussed, tests are performed, and information about the operation is provided.

2. Anesthesia: General or local anesthesia is used to numb the patient during the surgery.

3. Surgery: The surgeon will enter the area where the tumor is located and remove the tumor. The removed tissue is often sent to a laboratory.

4. Rehabilitation: After surgery, the patient is monitored and the necessary medical care is provided.

The advantages of surgical intervention include the following:

1. Effectiveness of removing the cancerous organ: Surgical removal of cancer detected in the early stages often provides high efficacy in treating patients.

2. Improve quality of life: Removing the tumor helps reduce patients' pain and improve their quality of life.

3. Analysis: The removed tissue is examined in a laboratory, which allows the diagnosis of the later stages of the disease. 2. Chemotherapy. Chemotherapy is the use of chemical drugs to kill cancer cells or stop their growth. This method is used for many types of cancer, especially metastatic forms. Chemotherapy is often used in the postoperative period.

In this article, we will provide detailed information about the types, process, advantages, and disadvantages of chemotherapy.

Chemotherapy is divided into several types:

1. Combination chemotherapy: Using different chemotherapy drugs together. This method allows for the targeting of different types of cancer cells and increases effectiveness.

2. Neoadjuvant chemotherapy: Used before surgery to shrink the tumor and facilitate healing after surgery.

3. Adjuvant chemotherapy: It is used after surgery. It is designed to prevent the cancer from coming back. The clinical course of chemotherapy consists of the following stages:

1. Patient preparation: The patient's general condition is assessed, necessary tests are performed, and a treatment plan is developed.

2. Drug administration: Chemotherapy can be given by injection into a vein or in pill form. The drug is usually given over several cycles.

3. Monitoring: The patient is constantly monitored during chemotherapy. If side effects occur, medical care is provided.

Advantages of chemotherapy.

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1. Efficacy: Chemotherapy can be effective in treating many types of cancer, even in metastatic cases.

2. Tumor shrinkage: Medication can be used to shrink the tumor, making surgery easier.

3. Reducing the risk of recurrence: The chance of preventing cancer from returning is increased through adjuvant chemotherapy.

Disadvantages of chemotherapy.

1. Side effects: During chemotherapy, patients may experience side effects such as vomiting, fatigue, hair loss, and decreased immunity.

2. Duration of treatment: The chemotherapy process can often last for several months, which is difficult for the patient.

3. Individual reactions: Each patient may react differently to chemotherapy, so an individual approach is necessary.

Radiotherapy.

Radiotherapy is a treatment that uses high-energy rays to damage cancer cells. These rays damage the cells' DNA and stop them from growing. Radiotherapy is used for many types of cancer, including breast, lung, and prostate cancer. It is usually used to shrink or kill tumors. Radiotherapy is often used in combination with chemotherapy.

Types of radiotherapy include:

1. External radiotherapy: In this method, rays are delivered to the patient from an external source (radiation machine). They are directed to the exact location of the tumor and damage the cells.
2. Internal radiotherapy (brachytherapy): In this method, a radiation source is placed directly into the tumor. This approach allows for more precise and powerful delivery of the rays.
3. Monitoring: The patient's condition is monitored throughout the treatment. If side effects occur, medical attention is provided and the treatment plan is changed if necessary.

What are the advantages of immunotherapy?

1. Targeted effect: Immunotherapy allows for precise targeting of cancer cells, which reduces the risk of damage to healthy tissue.

2. Long-term effectiveness: In some patients, immunotherapy can lead to long-term remission, which helps prevent the cancer from returning.

3. Medically adequate response: Immunotherapy can provide effective results for many patients, especially in metastatic forms of cancer.

What are the disadvantages of immunotherapy to the body?

1. Side effects: During immunotherapy, patients may experience various side effects due to increased immunity, such as skin reactions, fatigue, and pain.

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2. Not effective for all patients: Immunotherapy does not work the same for every patient. Some patients may not benefit from this method.

3. Duration of treatment: The immunotherapy process often lasts several months, which can be stressful for patients.

4. Targeted therapy. Targeted therapy is carried out using special drugs that affect the growth of cancer cells. In this case, drugs or other molecules target the growth mechanisms of cancer cells, which allows for minimal damage to healthy tissues. This method is also one of the new innovative approaches to cancer treatment, which uses special molecules that affect the growth or spread of cancer cells. As I mentioned above, in this article we will also talk about the basic concepts, types, process, advantages and disadvantages of targeted therapy.

Results and their analysis. Based on the above results, it is worth highlighting the following analysis within the framework of measures taken to treat and prevent cancer in Uzbekistan.

Mass preventive measures. The aim of mass preventive measures carried out by the Ministry of Health of the Republic of Uzbekistan is to raise public awareness. This includes preventive examinations, seminars, lectures for early detection of cancer, and articles are published and made available to the general public. Establishment of new oncology centers. New oncology centers are being opened in our country, which will allow patients to receive modern medical services. These centers are equipped with the latest technologies and are staffed with qualified specialists. Informing and raising awareness of the population. Information about cancer is being disseminated through the media and social networks. This is aimed at raising awareness among the population about early detection and prevention of cancer. Conducting medical research. Uzbekistan is paying attention to conducting scientific and medical research. Scientific research is being conducted in cooperation with international organizations, which helps to develop new approaches to the fight against cancer. Development and implementation of advanced training programs. Various programs and seminars are being held to improve the skills of medical personnel, which will help them further expand their professional knowledge and master the latest treatment methods.

Conclusion. Summarizing all the methods used to treat cancer and their effectiveness, clinic, advantages and disadvantages, we found it appropriate to explain each of them. It is known that surgical intervention is an important method in the treatment of cancer, which can stop the spread of cancer by removing the tumor and improve the quality of life of patients. However, the use of this method for each patient should be assessed individually. In order to obtain long-term results, it is important that it is performed by safe and qualified surgeons. Chemotherapy is an important and effective method in the treatment of cancer and has many advantages, but it also has side effects. In order to improve the general condition of patients and prevent the recurrence of cancer, chemotherapy must be planned and carried out by qualified specialists. The chemotherapy approach should be developed individually for each patient. Radiotherapy and Targeted therapy are among them.

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