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**Abstract:** *Rheumatoid arthritis (RA) is a chronic autoimmune disease that mainly affects the joints. This disease is manifested by inflammation, pain, swelling and movement restrictions. Modern methods in the treatment of rheumatoid arthritis are aimed at controlling the symptoms and progression of the disease, as well as improving the quality of life of patients. This article provides detailed information about modern methods of treating rheumatoid arthritis.*

**Key words:** *rheumatoid arthritis, inflammation, drugs, joints, pain, disease, treatment.*

Medications play a key role in the treatment of rheumatoid arthritis. Modern treatment methods include the following types of drugs. Nonsteroidal anti-inflammatory drugs are used to reduce pain and reduce inflammation. Medications such as ibuprofen and naproxen are widely used. Classic modifying antirheumatic drugs help to slow down the progression of the disease. Drugs such as methotrexate, sulfasalazine, and leflunomide are common. Biologic DMARDs drugs target specific parts of the immune system and reduce inflammation. Examples include tumor necrosis factor (TNF) inhibitors, interleukin-6 (IL-6) inhibitors, and drugs that target B cells. They are used to quickly reduce inflammation, but long-term use is not recommended, as they can cause many side effects. Rheumatoid arthritis (RA) is a chronic autoimmune disease that mainly affects the joints. The pain in the joints may worsen, especially in the morning or when you are inactive for a long time. As a result of inflammation, the joints may swell and become hot. There may be difficulties and limitations in the movement of the joints. Stiffness in the joints may occur upon waking in the morning,

usually lasting more than 30 minutes. Symptoms of general inflammation in the body, such as fever, fatigue, and muscle aches. Rheumatoid arthritis usually affects both arms and legs equally. Some patients may develop skin rashes or nodules (rheumatoid nodules). The disease can sometimes affect internal organs, such as the lungs, heart, and blood vessels. If you have one or more of these symptoms, it is important to consult a doctor. Early detection and treatment of rheumatoid arthritis can help slow the progression of the disease. Modern drugs work through different mechanisms, and their effect depends on the type of disease, the composition of the drug, and the target site. Drugs often bind to receptors on the cell surface. This binding changes the internal processes of the cell and causes a certain effect (for example, reducing pain or reducing inflammation). Some drugs inhibit (stop) or stimulate the activity of enzymes. These processes control metabolism, inflammation, or other biological processes. Drugs can control the flow of ions and other substances by changing the permeability of the cell membrane. This is important, for example, in controlling heart rhythm or blood pressure. Some drugs can control the growth, development or death of cells by changing the expression of genes. This is very important for oncology drugs. In the treatment of autoimmune diseases or allergic reactions, drugs can decrease or increase the activity of the immune system.

Today, the causes of the development of the disease are unknown. Indirect data: an increase in the number of leukocytes in the blood and the erythrocyte sedimentation rate (ESR) indicates that the process is of an infectious nature. It is assumed that the disease develops as a result of an infection that causes a violation of the immune system in individuals with a genetic predisposition; in this, immune complexes (consisting of antibodies, viruses, etc.) are formed, which are stored in the tissues and cause damage to the joints. But the ineffectiveness of treatment of rheumatoid arthritis with antibiotics, perhaps, indicates that this assumption is incorrect. The disease is characterized by high disability (70%) that occurs very early. The main causes of death due to the disease are infectious complications and kidney failure. Rheumatoid arthritis treatment is mainly aimed at relieving pain, slowing down the progression of the disease, and restoring damaged tissues

with the help of surgical intervention. If the disease is detected early with the help of modern tools, the damage it can cause to the joints and other tissues is significantly reduced. The disease manifests itself for the first time during severe physical stress, emotional shock, fatigue, during hormonal adjustment, as a result of adverse factors or infection.

Psychotropic drugs interact with neurotransmitters (for example, serotonin, dopamine) in the nervous system to control mood, sleep, and other psychological states. Antibiotics and antiviral drugs work by stopping the growth of microbes or killing them. Modern drugs often combine several mechanisms, and their effect depends on many factors, including the individual characteristics of the patient. It is important to consult a doctor before taking medication. Physiotherapy plays an important role in the treatment of rheumatoid arthritis (RA). This disease is mainly associated with joint inflammation and pain, and physiotherapy can help through the following methods.[1]

Physiotherapists use various methods to reduce pain, such as heat or cold therapy, electrotherapy, and massage. These techniques help reduce inflammation and relax muscles. Physiotherapy helps to increase the mobility of the joints. Special exercises and stretching techniques reduce joint stiffness and improve mobility. Physiotherapists prescribe special exercises to strengthen muscles. Strong muscles support the joints and reduce their load, which helps reduce pain. Physiotherapy helps to prevent incorrect positions of the joints. This is done, for example, by teaching correct walking and standing positions. In the rehabilitation process after rheumatoid arthritis, physiotherapy helps the patient to recover. This process is aimed at restoring muscle strength and mobility. Physiotherapists educate patients about the condition and provide them with the strategies they need to manage their condition. This includes, for example, exercises that can be done at home. Physiotherapy can help reduce stress, which has a positive effect on pain management. Relaxation techniques and breathing exercises can help reduce stress. Physiotherapy is an important adjunct in the treatment of rheumatoid arthritis, and working together with doctors and physiotherapists can

help improve the patient's overall condition. It is important to create an individual plan for each patient.

Physical therapy exercises can help reduce pain in several ways. Physiotherapy exercises strengthen the muscles, which provide additional support to the joints. Strong muscles reduce the load on the joints and reduce pain. Exercises increase joint mobility, which reduces stiffness. Increased movement improves blood circulation in the joints and reduces inflammation. Physiotherapy exercises help reduce inflammation because they improve blood circulation and stimulate metabolism. This process helps reduce pain. [5]

Physiotherapy exercises and relaxation techniques reduce stress. Stress can make pain worse, so reducing it can help manage pain. Physiotherapists reduce the load on the joints by teaching correct walking and standing positions. Incorrect positions can increase pain, so it is important to learn the correct positions. Exercise improves blood circulation, which increases the supply of oxygen and nutrients to joints and muscles. This process helps reduce pain. Physiotherapy exercises play an important role in the rehabilitation process after an injury or illness. They speed up recovery and reduce pain. Physiotherapy exercises should be determined individually, as each patient's condition and needs may be different. A consultation with a physical therapist can help you choose the best approach to reduce pain and increase mobility.[2]

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A number of physiotherapy methods are effective for reducing pain. Special exercises to strengthen muscles can help reduce pain. These exercises strengthen the muscles and provide additional support to the joints. Stretching exercises increase muscle elasticity and reduce stiffness. This method improves joint mobility and reduces pain. Ultrasound therapy, electrotherapy and other physical therapy methods can help reduce pain and reduce inflammation. Therapeutic massage relaxes muscles, improves blood circulation and reduces pain. This method also helps to reduce stress. Applying hot or cold compresses can help reduce pain. Heat therapy relaxes muscles, while cold therapy reduces inflammation. Manual therapy involves manual work on joints and muscles. This method is effective in reducing pain and increasing mobility. Biofeedback techniques help patients control their bodies. This technique helps reduce stress and manage pain. Rehabilitation programs after injury or illness are designed to reduce pain and speed recovery. Acupuncture is a traditional method for pain relief that helps balance the flow of energy in the body. Physical therapists can help reduce pain by teaching patients proper positions and offering pain management strategies. Each patient's condition and needs may be different, so a consultation with a physical therapist can help determine the best approach.[4]

**Conclusion:**

Treatment of rheumatoid arthritis includes modern methods, drugs, physical therapy, nutrition, psychological support and new research. These approaches help to improve the quality of life of patients and control the progression of the disease. An individual approach and treatment plan is important for each patient, so it is necessary to consult a doctor. It is important to use all the possibilities of modern medicine for effective treatment of rheumatoid arthritis.

**References:**

- 1.В. Х. Василенко. Пропедевтика внутренних болезней. М.: Медицина, 1989 — 496-498-бет.
- 2.Samartzis, Dino, Shen, Francis H. and Keller, Thomas Christian. „arthritis | Definition, Causes, & Treatment | Britannica“ (en). Encyclopedia Britannica 2022-yil
- 3.Shah, Ankur. Harrison's Principle of Internal Medicine, 18th, United States: McGraw-Hill Education — 2738-бет. ISBN 978-0-07174889-6.
- 4.Пропедевтика внутренних болезней с элементами лучевой диагностики : учебник / Шамов, И. А. — М. : ГЭОТАР-Медиа, 2016.
5. „Ревматоидный артрит пальцев рук: первые симптомы, лечение и диагностика“. feedmed.ru. 2015-yil
- 6.Внутренние болезни : учебник. — М. : ГЭОТАР-Медиа, 2008. — 496 с.