WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 3, Issue 10, Oct., 2022

PHYSICAL EXERCISE THERAPY IN RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLOARTHRITIS

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Annotation

Rehabilitation of patients with rheumatoid arthritis and ankylosing spondyloarthritis remains one of the most difficult problems of modern rheumatology. Its relevance is due to the progressive course of the disease, the level of damage to the musculoskeletal system, the highest incidence of working-age people, the early onset of a decrease in functional ability, the loss of professional and social skills, the difficulty of physical and psychological flexibility of patients, which leads to great disabilities, is a common medical and social problem causing economic losses. Physical therapy exercises for patients with rheumatoid arthritis and ankylosing spondyloarthritis serve as an effective means of improving functional status in the inpatient and outpatient stages of medical rehabilitation.

Keywords: rheumatoid arthritis, ankylosing spondyloarthritis, rehabilitation, therapeutic physical therapy

REVMATOID ARTRIT VA ANKILOZLOVCHI SPONDILOARTRITLARDA JISMONIY MASHQLAR TERAPIYASI

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Annotatsiya

Revmatoid artrit va ankilozlovchi spondiloartrit bilan og'rigan bemorlarni reabilitatsiyasi zamonaviy revmatologiyaning eng qiyin muammolaridan biri bo'lib qolmoqda. Uning dolzarbligi kasallikning progressiv kechishi, mushak-skelet tizimining shikastlanish darajasi, mehnatga layoqatli odamlarning eng ko’p kasallanishi, funktsional qobiliyati pasayishining erta boshlanishi, kasbiy va ijtimoiy ko'nikmalarning yo'qolishi, bemorlarning jismoniy va psixologik moslashuvchanligining qiyinlashishi, katta nogironliklarga olib keladigan, umumiy tibbiy va ijtimoiy muammo bo'lgan katta iqtisodiy yo’qotishlarga sabab bo’lmoqda.

Revmatoid artrit va ankilozlovchi spondiloartrit bemorlari uchun fizioterapiya mashqlari tibbiy reabilitatsiyaning statsionar va ambulatoriya bosqichlarida funktsional holatni yaxshilashning samarali vositasi bo’lib xizmat qiladi.

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Kalit so'zlar: revmatoidli artrit, ankilozlovchi spondiloartrit, reabilitatsiya, davolovchi jismoniy tarbiya

ЛФК ПРИ РЕВМАТОИДНОМ АРТРИТЕ И АНКИЛОЗИРУЮЩЕМ СПОНДИЛОАРТРИТЕ

Наимова Ш. А.

Аннотация

Реабилитация больных ревматоидным артритом и анкилозирующим спондилоартритом остается одной из самых сложных проблем современной ревматологии. Актуальность ее обусловлена прогрессирующим течением заболевания, уровнем поражения опорно-двигательного аппарата, наибольшей заболеваемостью лиц трудоспособного возраста, ранним началом снижения функциональных возможностей, утратой профессиональных и социальных навыков, трудностью физической и психологической гибкости больных, что приводит к большой инвалидности, является общей медико-социальной проблемой, вызывающей экономические потери. Лечебная физкультура у больных ревматоидным артритом и анкилозирующим спондилоартритом является эффективным средством улучшения функционального состояния на стационарном и амбулаторном этапах медицинской реабилитации.

Ключевые слова: ревматоидный артрит, анкилозирующий спондилоартрит, реабилитация, лечебная физкультура.

Rheumatoid arthritis (RA) and ankylosing spondyloarthritis (AS) belong to the group of autoimmune diseases, the disease develops at a young age, is characterized by chronic development, limited work capacity in some patients, and these problems determine its social importance. In patients with RA and AS, exercise therapy is the main element of the rehabilitation complex at all stages. According to S. Maddali Bongi and A. Del Rosso, the complex treatment of rheumatological patients should include physical exercises aimed at increasing the range of motion, muscle strength and general physical condition. Evidence-based research databases provide strong evidence for the effectiveness of exercise in treating patients with RA [3,7,12].

The rehabilitation program should include aerobic and strength, group and individual physical therapy (treatment with exercises). At the beginning of the last century, immobilization of the spine with plaster "jackets" was used to treat AS. This type of treatment was considered useful with the assumption that the inflamed joints of the

spine do not feel the load, which means that pain in this area is reduced. Only 40 years later, this technique was discontinued because inactivity worsens the condition of patients with AS [1,5,15].

Since then, AS patients have been advised to lead an active lifestyle and exercise regularly. But how many patients actually take this advice? In May 2006, the American Journal of Preventive Medicine presented data from a national health study that included 6,829 people with arthritis and 20,676 people without arthritis. A survey found that among people with arthritis, only 20.0% engaged in regular exercise [4,11,17].

Similar results were reported in studies that evaluated daily physical activity among patients with AS. The most interesting of these is work done at Stanford University, which detailed the number, duration, and nature of exercise sets used by patients with AS. Of the 220 AS patients included in this study, 78.6% engaged in exercise therapy, with an average duration of exercise of 85 minutes per week and an average number of days of exercise therapy of three days per week. Based on the data from our own study, it can be suggested that one of the reasons for the low adherence of AS patients to exercise therapy is the lack of adequate information. Exercise therapy is a fear for patients that it will worsen their health or not help. According to the authors of a number of foreign studies, the fear of pain and the misconception that exercise can be harmful are obstacles to an active lifestyle in patients with AS [2,6 ,19,22].

Disease duration may be another reason for poor adherence to exercise therapy. It is known that functional disorders in AS develop gradually, and the longer the duration of the disease, the greater the risk of limiting spinal movements. In this regard, it can be concluded that exercise therapy should have a more effective effect on functional status in patients with a short duration of the disease. But one recent study found that among patients with disease duration of 15 years or less, exercise significantly reduced the expression of pain and stiffness, but its effect on joint function was insignificant, while the disease When the duration is more than 15 years, a clear improvement of the joint function was noted.

The authors of the study explain that pain and joint stiffness in patients with short-term AS are mainly caused by the inflammatory process [4,6,20], and that exercise treatment increases the levels of catecholamines, β-endorphin and cortisol. helps to increase. At the same time, since their functional impairment is not severe, there should be a very high motivation to continue the exercise therapy after the inflammation subsides. In the long course of the disease, there are pronounced functional disturbances, and pains in the spine have a mixed inflammatory and mechanical character. In this regard, patients should engage in physical exercises for

a long time, on the one hand, in order to reduce pain, and on the other hand, to improve functional capabilities, therefore, there should be more encouragement (motivation) for daily physical activities. The results of this study revealed a relationship between the number and duration of exercise therapy and improvement in spinal function in patients with long-term delays. The best results were shown in patients who exercised at least 30 minutes a day and at least 5 days a week.

Disease activity and expression of pain are also barriers to exercise. However, the results of studies evaluating their effect on physical activity in patients with arthritis are inconsistent. According to some studies [1,2], the patient's condition is the main obstacle to exercise therapy, while others [2] did not find any relationship between these indicators and the level of physical activity . The relationship between pain and exercise is probably very complex, because, on the one hand, pain and disease activity can really negatively affect the functional capacity of patients, limiting their daily activities. On the other hand, physical activity can help reduce inflammatory pain, especially in people with AS.

Despite weak correlations between barriers to exercise adherence and disease activity stage, as well as the BASFI index level, the severity of functional impairments, or rather irreversible processes in the later stages of the disease, may lead to exercise therapy. defines a relatively negative attitude.

Thus, despite a positive perception of physical exercise, 41.0% of AS patients perform daily exercise. The lack of information about the exercises indicated in AS, the frequency of their use, the effect on disease activity and functional capacity significantly limits their use by AS patients. Until now, it remains unclear which exercises are most effective and how regularly they should be performed to prevent spine and joint dysfunction [8,10,13].

Reduction of RA activity on the basis of treatment with specially selected drugs involves complex treatment of patients with exercises, i.e. massage, physiotherapy procedures to reduce pain and prevent joint deformations. This is a very successful method for improving the functional ability of the patient's locomotor system. The results achieved at the stage of inpatient treatment require continuous and strict implementation of many patients in the next stages of medical therapy and rehabilitation - in polyclinics, senator-resort zones, in ambulatory conditions.

Physical therapy exercises for patients with rheumatoid arthritis and ankylosing spondyloarthritis serve as an effective means of improving functional status in the inpatient and outpatient stages of medical rehabilitation. The principles of prescribing physical therapy for chronic diseases of the joints should be based not on the nosological diagnosis, but on the size and activity of the inflammatory process.

The exercise therapy program should include the following physical therapy exercises: morning hygiene gymnastics, therapeutic gymnastics with flexibility and strength-building exercises with walking, including aerobic exercises.

One of the most important tasks of rehabilitation programs for patients with RA and AS is the use of exercise therapy to prevent and reduce disability in this group of patients. Tasks of exercise therapy for patients with RA and AS: preventing the development of deformities in all joints of the locomotor system and correcting the resulting deformities; increased mobility and muscle strength in weakened muscle groups; to determine the personalized amount of tools and methods of functional and movement loads; development of an adequate functional stereotype; Restoring the functional capabilities of RA patients, returning them to active work. Exercise therapy for patients with RA is indicated in all stages of the disease (I-IV), after the acute inflammatory process has stopped. Patients with high activity of the disease are advised to correct the posture, correct the joints of the hands, breathing exercises, etc. is recommended.

Contraindications to exercise therapy in patients with RA: high (grade III) activity of the process, severe pain syndrome and exudative processes in the joints. The rehabilitation efficiency of patients with RA was 70%, compared to 60% in the comparison group. Rehabilitation technologies for patients with AS and RA should include physical exercises with a total duration of 20-30 minutes in general lying and sitting positions, with gradually increasing strength, contributing to increasing the range of motion. adding static (not limited by the threshold of pain), strengthening the muscles of the limbs, muscle corset, forming the correct posture), treatment and exercise regimen (walking, 80-120 steps / min, 2-3 km, daily, duration 40-50 minutes) is desirable.

Physical exercise therapy (JMD) is one of the main methods of medical rehabilitation based on the use of standardized physical activities. When using any physical exercises, active movements and moderate loads improve muscle tone, increase oxygen saturation in the blood, normalize the activity of the cardiovascular system and create a positive psychological mood [9,14,16]. Perhaps, among all methods of non-drug treatment of rheumatological diseases, only exercise therapy is unanimously approved by all experts, and they are accepted as a clear and safe approach. Exercise therapy has a solid evidence base—but of course, well-designed controlled studies are proving difficult. Therefore, the effectiveness of exercise therapy is usually evaluated by the dynamics of the patient's general condition during treatment or compared with groups that do not receive therapy (a control group of patients waiting for treatment) [19,24].

The priority areas of treatment for RA are from creating a functional-productive state of the joints to the installation of plaster longettes, as well as therapeutic treatment in the protective mode of gymnastic complexes (T.A. Shelepina et al., 2008). Inadequate clinical efficacy of conventional exercise therapy for RA and AS patients leads to low patient and physician demand for them (L.C. Lee et al., 2006; T. Sokka et al., 2008) (N.I. Korshunov et al., 2005). From the point of view of evidence-based medicine, the level of evidence for exercise therapy in patients with rheumatoid arthritis to reduce pain and improve functional status is still weak (A. Christie et al., 2007).

During the follow-up period, as a result of exercise therapy, the duration of morning sickness and the Richie index were significantly reduced. Significant changes were noted in all studied parameters, including DAS4 activity indicators, in the group of individuals performing the intensive therapy program. It should be noted that the scores achieved in measures such as duration of morning sickness, arm strength, and speed of the step test were better than those in the conventional exercise group. Changes in the integral parameters reflecting the severity of the patient's general condition, DAS activity indices, HAQ functional deficit indices, and time to perform step tests did not reach a reliable indicator. EChT decreased by 27% in patients who participated in exercise therapy ($p < 0.05$). The level of CRO decreased by 20% - 28% in the groups ($p < 0.05$).

In patients with moderate activity of the inflammatory process and polyarticular damage, the treatment load is based on the principles of low selectivity of physical activity involving almost all muscle groups. General strengthening and breathing exercises should form the basis of medical gymnastics.

Targeted treatment recommendations for RA were first published in 2010 and updated in 2016. According to these clinical guidelines, the main goal of treatment is to achieve remission or, alternatively, low disease activity [9,23,24].

However, this goal is difficult to achieve for many reasons. According to the results of a Swedish study, only 17.5% of RA patients (mainly men at the initial mild level of disease activity) had stable remission. According to the 5-year NOAR (Norfolk Arthritis Register) study of 886 RA patients, only 12–14% of patients achieved sustained remission, while 54% of patients were still observed to have high/moderate activity [18 ,20].

A set of therapeutic exercises for kidney damage in patients with RA and AS is based on physical exercises for the back, lumbar and abdominal muscles. This set includes general conditioning and breathing exercises, as well as initial standing, sitting or lying exercises aimed at affecting most muscle groups. They are performed calmly, without muscle tension, slowly. Do not hold your breath. It is also necessary to

monitor the equal distribution of the load on all parts of the body, that is, control the changes in the movements of the arms, legs and body. Usually, a set of therapeutic exercises begins with light movements, which gradually become more difficult and end with light exercises and walking.

They activate the body's protective function, improve metabolism, heart and lung function, and help the patient better adapt to physical activity. In addition, exercise enhances the function of the adrenal glands, which produce anti-inflammatory hormones that reduce inflammation in the kidneys. Correct and regular use of exercise therapy in treatment prevents the body's recovery process. Exercise therapy and strength training have traditionally been an important part of AS complex therapy. V. Pecourneau et al. by [21] evaluated data from 8 RCTs (n = 331) and analyzed the effectiveness of different exercise programs for AS. Rehabilitation treatments included home exercise therapy, swimming, pilates and exercise with a trainer. In general, the use of these methods made it possible to reliably reduce the level of activity and severity of functional disorders in AS. Thus, the average dynamics of BASDAI was -0.90 points (95% CI -1.52 to -0.27; p = 0.005) and BASFI was -0.72 points (95% CI -1.03 to - to 0.40; p < 0.00001).

The benefits of exercise and strength training for RA and AS include not only reduced pain expression, but also other health outcomes, such as improved cardiovascular health. This was recently reported by A. Rausch Osthoff et al. presented a meta-analysis of 63 RCTs (n = 3909) on this issue. According to estimates, exercise therapy improved the cardiovascular system and muscle strength in these patients: 0.56 (95% CI 0.38–0.75) and 0.54 (95% CI 0.35–0.72), respectively.

Thus, exercise therapy is one of the main methods of medical rehabilitation based on the use of standardized physical activity. Treatments are different: for example, treatment with exercises at home, in special groups under the guidance of a trainer, in the pool, etc. When using any type of exercise, active movements and moderate strength loads improve muscle tone, increase oxygen saturation in the blood and normalize the activity of the cardiovascular system, and can create a positive psychological environment. Perhaps, among all the methods of non-drug treatment among rheumatological diseases, only exercise therapy is unanimously approved by all experts, and they are accepted as a clear and safe approach. Exercise therapy has a solid evidence base - but of course, well-designed controlled studies are difficult to come by in this case. Therefore, the effectiveness of exercise therapy is usually evaluated by the dynamics of the patient's condition during treatment or compared with a group that did not undergo therapy (a control group of patients waiting for treatment).

Ishlatilgan adabiyotlar ro'yxati

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