

Effectiveness of Glucocorticosteroids in Elderly Patients with Rheumatoid Arthritis

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Abstract: The article presents the results of a study of the clinical effectiveness and tolerability of the drug prednisolone in the treatment of rheumatoid arthritis in elderly people . An open clinical study of the effect of prednisolone was conducted in 24 patients with rheumatoid arthritis (RA) of both sexes aged 45-65 years. During the treatment period, basic therapy, drugs that improve heart function, diuretics and antiplatelet agents were prescribed . Controlled clinical and laboratory parameters were assessed before patients were included in the study and after completion of therapy.

Keywords: rheumatoid arthritis, prednisolone, NSAIDs.

Rheumatoid arthritis is a widespread autoimmune disease of unknown etiology, characterized by symmetrical erosive synovitis , destruction of cartilage and bone tissue, as well as the development of a wide range of systemic manifestations. This explains the significant socio-economic losses associated with RA, which are comparable to those with coronary heart disease (CHD). RA is the most common systemic connective tissue disease. According to various research groups, RA affects 0.5–2.5% of the adult population. RA can occur in childhood (juvenile RA), but the most common age of onset is 52 ± 15 years. Among people under 35 years of age, the prevalence of RA is 0.38%, and among people over 55 years of age, it is 1.4%. Women get sick more often than men - 2-3 : 1. A high incidence of RA is noted among first-degree relatives (3.5%), especially among females (5.1%). The etiology of RA remains unknown. The role of a wide range of exogenous, including infectious (Epstein- Barr virus , parvovirus B19, retroviruses , antigens and stress proteins of bacteria) and non-infectious (smoking, coal dust, some components of mineral oils, various chemical compounds, medicinal substances), as well as endogenous (citrullinated proteins and peptides) factors. It is assumed that exogenous factors take an indirect part in the development of RA against the background of genetic predisposition. The problem of studying rheumatoid arthritis (RA) in old age remains one of the most pressing in rheumatology. The increase in the number of elderly and senile people, observed in Uzbekistan, as in many other countries, is accompanied by an increase in the number of diseases associated with the aging process - osteoarthritis , rheumatoid arthritis, osteoporosis. Rheumatoid arthritis is the most common form of joint pathology, one of the main causes of chronic pain syndrome, premature loss of ability to work and disability. When preventing rheumatological diseases, including rheumatoid arthritis in the elderly, they can normalize the processes of bone remodeling , improve its strength characteristics, reduce the risk of developing fractures, and improve the quality of life. The social significance of RA is determined not only by its widespread prevalence, but , above all, by the fact that it quickly leads to disability of patients, with the ensuing consequences: a change in the quality of life and great material damage caused to both the patient himself and society. Rheumatoid arthritis affects 1-3% of the world's population (Gabriel 2016). The significant prevalence of RA mainly among

the working age group of the population leads to chronicity of the disease and a progressive course, and a high frequency of loss of professional ability of patients [1,2]. The increase in the number of elderly and senile people observed in Uzbekistan, as in many other countries, is accompanied by an increase in the number of diseases associated with the aging process - steoarthritis , rheumatoid arthritis, osteoporosis, diabetes mellitus, obesity, Alzheimer's disease [3,4]. The process of human aging is accompanied by changes in the genetic apparatus of the cell and the development of a number of diseases. Due to physiological aging is realized in accordance with a genetic program, all people have uniform signs of aging and old age, 85% die from the same diseases: atherosclerosis, diabetes, immunosuppression, cancer, rheumatoid arthritis and other autoimmune diseases [3,4]. The main development of diseases such as rheumatoid arthritis, osteoarthritis , spondyloarthritis, osteochondrosis, osteoporosis is involution of connective tissue [5]. With aging, the cellular composition and the ratio of the main structural macromolecules of the intercellular substance change. Increases collagen content and the amount of connective tissue in various organs, the content of structural glycoproteins, glycosaamnoglycans , proteoglycans decreases , the amount elastic fibers. The development of connective tissue disorders is associated not only with age-related changes in the musculoskeletal system, but also in blood vessels [5,6]. Transformation of connective tissue with aging is accompanied by disruption of the structure of articular and intervertebral cartilage, bone mineralization, skeletal strength, and the occurrence of deformities. Involutional changes in the body increase starting from the age of 35 and up to 50-55 years in women, 55-60 years in men [7]. Rheumatoid arthritis is the most common form of joint pathology, one of the main causes of chronic pain syndrome, before temporary loss of ability to work and disability. When preventing rheumatological diseases, including rheumatoid arthritis in the elderly, it can normalize the processes of bone remodeling , improve its strength characteristics, reduce the risk of developing fractures, and improve the quality of life [8,9]. A wide segment of the population needs prevention, and especially for rheumatological diseases will persist in a state of prolonged stress, alcohol abuse, during radiation therapy and others. It should be canceled that without in-depth study issues of etiology, pathogenesis, diagnosis, prevention and treatment of rheumatoid arthritis in the elderly, without outreach work among the population, training of medical staff in the fight against an epidemic of these diseases will be ineffective. The development of strategies for effective prevention on a large scale is also required . The leading clinical manifestation of RA is articular syndrome of varying severity [3,4]. The development of arthritis from several weeks to several months may be preceded by increased fatigue, decreased appetite, weight loss, arthralgia, low-grade fever, increased sweating, moderate anemia, increased erythrocyte sedimentation rate (ESR), and lymphadenopathy [10]. Options for the onset (debut) of RA can be varied: symmetrical polyarthritis with a gradual increase in pain and stiffness, mainly in the small joints of the hands; acute polyarthritis with predominant involvement of the joints of the hands and feet, severe morning stiffness , or oligoarthritis of the knee or shoulder joints, followed by rapid involvement of the small joints of the hands and feet ; acute monoarthritis of large joints; acute oligo- or polyarthritis with systemic manifestations (fever, lymphadenopathy , hepatosplenomegaly); recurrent bursitis and tenosynovitis of the wrist joints; acute polyarthritis in elderly people with multiple lesions of small and large joints, severe pain, diffuse swelling and limited joint mobility; generalized myalgia, stiffness, bilateral carpal tunnel syndrome, weight loss. Usually seen in elderly patients. Signs characteristic of RA appear later . Regarding the nature of the course and progression of joint destruction and extra-articular manifestations, several variants of the course of RA are distinguished: rapidly progressive course: high disease activity, rapid development of joint destruction, severe extra-articular lesions; progressive course: destruction of joints increases, new joints are involved, extra-articular lesions develop; intermittent course: complete or partial remission (spontaneous or treatment-induced) is periodically observed, followed by exacerbation involving previously unaffected joints; long-term spontaneous clinical remission. Involvement of joints in the pathological process is the leading factor in the clinical picture of RA. In the initial period, 1/3 of patients have arthralgia, which worsens with movement, and 2/3 have symmetrical arthritis of the small joints of the

hands and feet. A characteristic sign of synovial inflammation is morning stiffness in the joints; its duration usually correlates with the intensity of inflammation and is at least 1 hour. Pain and stiffness are most intense in the morning and gradually subside in the evening. In many developed countries, as a result of ongoing research, it was revealed that the disease, as it progresses, leads patients to disability. The disease progresses chronically and negatively affects the function of various organs and systems. After the onset of the disease, 10-15 years later, 90% of patients lose their ability to work, and 1/3 of the patients become completely disabled, and therefore rheumatoid arthritis is the main task for rheumatologists.

Goal of the work. To study the effectiveness of the use of glucocorticosteroids (prednisolone) in the complex treatment of patients with rheumatoid arthritis in the elderly

Material and methods. In the rheumatology department of the Bukhara Multidisciplinary Hospital, 24 patients were examined (14 women - 57.2% and 10 men - 42.8%) with a reliable diagnosis of rheumatoid arthritis . The age of the patients ranged from 45 to 62 years. We conducted a study of the following indicators: general blood count, rheumatic tests , protein fraction, radiography of joints and general urine analysis. The average hospital stay was 10 days.

Results. Upon admission, all patients had swelling of the joints, pain at rest and aggravated by physical activity, morning stiffness for more than 1.5-2 hours and limitation of movement. In addition to articular syndrome, 4 patients had a concomitant pathology - gastropathy . Treatment of patients was carried out taking into account the severity of the course and the presence of concomitant pathology. During drug therapy, patients used non-steroidal anti-inflammatory drugs (in the form of tablets and injections), and according to indications, glucocorticosteroids 30-60 mg were prescribed intravenously , taking into account gastropathy , omeprazole 20 mg 2 times for two weeks was recommended to patients . Over time, a clear improvement in the patients' condition was noted. Prednisolone has significant differences from other drugs. It has special anti-inflammatory effects on the mechanisms of disease development and has a number of common properties: rapid development of the therapeutic effect, the ability to reliably suppress disease activity, induce remission of RA, influence the rate of radiological progression, and maintain signs of improvement for several months after discontinuation of the drug. Significant improvement was achieved in 17 (70.8%) patients, satisfactory effect in 5 (20.9%). Side effects detected in 2 patients (8.3%) were mild and did not require discontinuation of the drug. n=24 patients p <0.005, p <0.001. Prednisolone has been used for the treatment of RA and other rheumatological diseases for a long time. The accepted early treatment strategy for RA is to use glucocorticosteroids more effectively than other drugs in the early and late stages of the disease.

Indicators	Before treatment	One week after treatment
Number of painful joints	8.3±4.6	5.5±4.0
Number of inflamed joints	5.1±3.1	3.0±2.5
Ritchie index, points	16.1±10.2	10.8±7.9
Pain at rest, YOUR	43.1±19.3	27.0±17.1
Pain when moving, YOUR	64.7±19.0	45.8±19.5
Pain on palpation, VAS	46.4±21.7	27.7±19.0

p <0.005 p <0.001

As a result of the study, it was found that a short course of prednisolone at a dose of 20 mg once a day in the form of intramuscular injections for 2 weeks significantly reduced the intensity of pain, and regression of the clinical symptoms of the disease was also noted.

Conclusions. The use of prednisolone in the complex treatment of patients with rheumatoid arthritis is effective, and its good tolerability allows us to recommend this drug for the treatment of these categories of patients.

Literature:

1. Tillaeva Sh. Sh., Badritdinova MN, Soliev AU, Akhmedova Sh.M. _ Currency and diagnostic criteria of rheumatoid arthritis in patients of senior age groups // Asian Journal of Multidimensional Research. Reviewed International Journal (AJMR) -2018.-Vol.7, - P. 184-188.
2. Tillaeva Sh. Sh , Khalilova F.A. The course and diagnostic criteria of rheumatoid arthritis in patients of older age groups // New day in medicine. -2018. - No. 3 (23). - pp. 70-72
3. . Tillaeva Sh . Sh . Diagnostic criteria of oostearthrosis in patients of senior age groups // International engineering journal for research & development/ impact factor: 6.549/ Vol.5issue 5. - . R 1-5.
4. Tilloeva , Sh. Sh., & Davlatov , S. S. (2021). Efficacy and tolerability of locidol in the treatment of rheumatoid arthritis in patients of older age groups. *Central Asian journal of medical and natural sciences* , 432-436.
5. Tilloeva , Sh. Sh. (2021). Study of the Distribution of Rheumatoid Arthritis in the Bukhara Region. *CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES* , 428-431.
6. Risk factors for the progression of gonarthrosis / NG Kashevarova , EM Zaitseva , OV Pushkova , AV Smirnov, LI Alekseeva // V Russian Congress on osteoporosis and other metabolic diseases of the skeleton (Moscow, 18 - November 20, 2013): program, materials . - Osteoporosis and osteopathy: application. - 2013. -P. 131-132.
7. Tillaeva , Sh. Sh., Isomiddinova , Sh. S., Rakhmatova , D. B., & Razhabova , G. Kh. (2008). STUDYING THE SPREAD OF RHEUMATOID ARTHRITIS IN THE BUKHARA REGION. 9 (3), 106.
8. Yaroslavtseva N.V. Lipoxicam in neurology.N eurol.psychiatry . _ 2006 No. 7 (122)
9. Prospects for the use of the modern anti-inflammatory drug Amelotex (meloxicam) in clinical practice. Eliseev M.S. Remedium. 2008 No. 11 p.22-23
10. Aletaha D., Neogi T., Silman AJ, et al. (September 2010). 2010 rheumatoid arthritis classification criteria: an American College of Rheumatology/European League Against Rheumatism collaborative initiative // Ann. Rheum . Dis . 69 (9): 1580–8.doi:10.1136/ard.2010.
11. American College of Rheumatology Subcommittee on Rheumatoid Arthritis Guidelines // Guidelines for the Management of Rheumatoid Arthritis. 2002 Update. Arthritis Rheumatism. – 2002. – No. 46. - R . 328 –346.
12. Mastbergen SC, Jansen NWD, Bijlsma JW and Lafeber F. Differential direct effects of cyclo-oxygenase-1/2 inhibition on proteoglycan turnover of human osteoarthritic cartilage: an in vitro study. – Arthrit Res Ther 2006; 8: R2 doi :10.1186 /ar1846.
13. Cutolo M., Sulli A., Ghiorzo P. et al. Antiinflammatory effects of leflunomide on cultured synovial macrophages from patients with rheumatoid arthritis // Ann Rheum Dis. 2003. - V. 62. - P.297-302.