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DEVELOPMENT OF COMORBID CONDITIONS UNDER THE INFLUENCE OF DRUGS USED IN RHEUMATOLOGY.

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Abstract: In modern rheumatology, the problem of comorbid infections has not lost its importance. Especially in recent years, the introduction of genetically engineered biological drugs into practice has increased. As a result, the risk of various local comorbid infections, including opportunistic infections - invasive mycosis, pneumocystic pneumonia, and urinary tract infections has increased.
In addition, reactivation of latent infections in the body - tuberculosis infection, hepatitis B and C viruses is observed. This required the study of comorbid infections in rheumatological diseases based on clinical rheumatological anamnesis and retrospective analysis. As a result, in which rheumatological diseases comorbid infection is more common; which comorbid infection is observed more often; which group has an increased occurrence of comorbid infections after taking drugs; it was possible to analyze the occurrence of comorbid infection in patients by age and gender. In the conclusion, the importance of vaccination and necessary solutions to prevent the mutual influence of rheumatological diseases and comorbid infections was emphasized.
Keywords:rheumatological diseases, gene-engineered biological drugs, comorbid infections.

Rheumatological disease is a disease characterized by systemic or local damage to connective tissue, which causes dysfunction of joints, muscles, bones and internal organs. Today, there are more than 200 RKs, and these diseases affect young children and adults and cause early disability, reducing the quality of life of patients and shortening the lifespan.

RK is one of the most common diseases, in terms of disability, they take the 3rd place after diseases of the circulatory system and cancer. One of the main problems of rheumatology is the issue of early diagnosis of diseases and adequate and timely comprehensive therapy.

Comorbid infections are secondary infections that deepen the course of the main disease in patients and, in turn, are severe at the expense of the main disease.

Due to various drugs used in rheumatological diseases, a state of immunodepression is observed in the human body, and as a result, the body's resistance to infections is decreasing.

Research methods:clinical and rheumatological anamnesis, retrospective analysis.

Research object: Medical cards of 300 patients were treated in the rheumatology, cardiorheumatology and SKAL arthrology departments of the multidisciplinary clinic of the Tashkent Medical Academy using clinical rheumatological anamnesis and retrospective analysis methods in order to study and prevent risk factors for the occurrence of comorbid infections in patients with rheumatological diseases. During 2020-2023, medical records of 300 patients with various rheumatological diseases were analyzed and the following results were obtained: 208 of 300 patients had no comorbid infection, 92 had comorbid infection. This is about 1/3 of patients. 92 cases were identified in the following rheumatological diseases

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Table 1

Diseases	N= 92 (%)
systemic lupus erythematosus	48 (52.1%)
rheumatoid arthritis	22 (23.9%)
ankylosing spondyloarthritis	11 (11.9%)
gout	7 (7.6%)
osteoarthritis	4 (4.1%)

The following comorbid infections are observed the most

Table 2

Infection	N= 92 (%)	Diseases
Urinary tract infection	18 (19.6%)	in systemic lupus erythematosus - 10, in rheumatoid arthritis - 6 in ankylosing spondyloarthritis - 2
Fungi	17 (18.5%)	in systemic lupus erythematosus – 6 in rheumatoid arthritis – 5 in ankylosing spondyloarthritis – 3 in gout - 2 in osteoarthrosis - 1
Pneumonia	15 (16.3%)	in the system red boricha - 8 pieces in rheumatoid arthritis - 7
Tuberculosis infection	12 (13%)	in systemic lupus erythematosus - 9 of which 2 pulmonary tuberculosis, 7 extrapulmonary tuberculosis in ankylosing spondyloarthritis - 2 bone tubercles, in gout - 1 bone tubercle
hepatitis C virus	11 (12%)	in systemic lupus erythematosus – 7 in rheumatoid arthritis – 2 in ankylosing spondyloarthritis - 1 in gout - 1
hepatitis B virus	9 (9.8%)	in systemic lupus erythematosus – 5 in rheumatoid arthritis – 1 in ankylosing spondyloarthritis - 1 in gout - 1 in osteoarthrosis - 1
herpes virus	6 (6.5%)	in systemic lupus erythematosus – 3 in rheumatoid arthritis – 1 in ankylosing spondyloarthritis - 1 in gout - 1
bacterial arthritis	4 (4.4%)	in ankylosing spondyloarthritis - 1 gout - 1 in osteoarthrosis - 2

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It is most often caused by taking the following drugs

gene engineering biological preparations	infliximab, adalinumab, abcixumab, rituximab, tocilizumab, secukinumab, ixekizumab	49 cases (54%)
hormonal drugs	prednisolone	23 cases (24%)
basic anti-inflammatory drugs	methotrexate, azathioprine, leflunomide, cyclophosphamide	20 cases (22%)

Distribution by age:

Under 25 years old	21 (22.8%)
25-50 years old	30 (32.6%)
Adults over 50 years old	41 (44.5%)

Distribution by gender:

a woman	49 (53.3%)
Male	43 (46.7%)

The main targets of the above drugs in the human body are tumor necrosis factor, interleukin - 1, 6, 17, 23, B and T lymphocytes, which are the main protective factors of the immune system. Due to this, as a result of taking these drugs, it was observed that various regional comorbid infectious conditions were added.

Summary. In order to prevent infectious conditions in rheumatic diseases, separate recommendations have been developed for each of them:

1. Before starting treatment against rheumatological disease and during the course of tuberculosis infection in persons who are at risk of developing it, undergo a regular examination.

2. Fluconazole is the drug of choice for the prevention of candidiasis.

3. Patients with latent HBV and HCV should consult a hepatologist before starting therapy, and to prevent viral reactivation, antiviral drugs should be started 1-2 weeks before the start of the main therapy and can be continued for 6-12 months after the therapy is finished. HBs-antibody titer, viremia level and transaminase level should be checked every 4-8 weeks during therapy.

4. Today, many studies have been conducted to study the effectiveness of vaccination against influenza and pneumococcal infection in rheumatological patients. The International Association of Rheumatology recommends that patients with autoimmune rheumatologic disease should receive this vaccination. Because the frequency of death is high in patients with respiratory tract infections. Vaccination should be done at least 4 weeks before the start of the treatment course.

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