

**PSYCHOSOMATIC RELATIONSHIPS IN PATIENTS WITH EARLY
RHEUMATOID ARTHRITIS**

Uzokov Jurabek Bakhtiyorovich

Normatov Murod Buribayevich

Samarkand State Medical University, Samarkand, Uzbekistan

ABSTRACT: A comparative assessment of the therapeutic effects of sulfasalazine (C), methotrexate (MT) and leflunomide (LV) was performed in 151 patients with early rheumatoid arthritis (RRA) during 12 months of follow-up. SS therapy in RPA was not effective enough. MT therapy and LF significantly reduced clinical and laboratory activity and improved the quality of life of RA patients after 12 months months of observation. In 16 patients with moderate and high degrees of disease activity, despite previous therapy with C, MT and LF, combination therapy with infliximab and MT for 24 weeks resulted in to a significant improvement in the clinical course of the disease and the quality of life. A direct correlation was noted between the functional index of the NAI health assessment and the number of RA patients with anxiety and depressive disorders.

Keywords: Quality of life, rheumatoid arthritis, methotrexate, early rheumatoid arthritis, infliximab, sulfasalazine, anxiety and depressive disorders.

INTRODUCTION

Rheumatoid arthritis (RA) is the most common inflammatory rheumatic disease of unknown etiology, characterized by the development of erosive symmetrical polyarthritis in combination with systemic immuno-inflammatory damage to internal organs. Of the variety of drugs included in the complex of treatment of RA patients, only disease-modifying antirheumatic drugs (BMARP) are able to slow down the progression of the disease. There is only a single piece of information in the literature about the tactics of the appointment of BMARP in patients with early RA (RPA). Used BMARPS they do not always control the activity of the disease and have a number of side effects. In this regard, the search for new drugs that can significantly improve the course of RA and reduce the number of side effects continues. One of the representatives of a new class of therapeutic agents is infliximab (IF), a chimeric monoclonal antibody against tumor necrosis factor α . Information about the advantages of IF over methotrexate (MT) in terms of influencing the quality of life and psychological status of patients with RA is scarce . The aim of the study was a comparative assessment of the clinical activity of the disease and the quality of life in patients with RPA when using sulfasalazine (CC), MT or leflunomide (LF) as the first BMART during 12 months of follow-up, as well as a comparison of the effectiveness of combination therapy IF and MT with monotherapy of MT in patients with an active course of the disease.

MATERIALS AND METHODS OF RESEARCH

Clinical, laboratory and instrumental examination of 151 patients with RPA was carried out. The diagnosis of RA was established according to the criteria of ACR (1987). The duration of the disease at the time of the initial examination ranged from 3 weeks to 12 months (on

average 6.5 ± 0.3 months). The average age of the patients was 58.2 ± 5.5 years. Most of the patients with RPA were seronegative for rheumatoid factor (RF) – 51.2%. Among the examined patients, medium and high degrees of activity of the immune-inflammatory process prevailed according to DAS 28 >3.2 ; I–II radiological stages of the disease according to the Steinbrocker classification (23.2 and 60.5%, respectively) and II functional class of RA (59.7%). After the diagnosis of RA, patients were randomly assigned to basic therapy: group I (55 patients) received CC at a dose of 2 g / day as basic therapy; group II (55 patients) – MT orally or intramuscularly at a dose of 10 mg/week; group III (41 patients) – LF at a dose of 100 mg / day for 3 days, then 20 mg / day. Along with basic therapy, all patients were prescribed one of the nonsteroidal anti-inflammatory drugs. The duration of follow-up was 12 months. The second stage of the study consisted in the selection of 46 patients from all groups after 12 months of follow-up with moderate (DAS 28 $> 3.2 < 5.1$) and high degrees of RA activity (DAS 28 > 5.1), despite ongoing therapy with CC, MT and LF. The examined patients were divided into two subgroups by the method of blind sampling. In subgroup I (30 people), patients received MT therapy (15-20 mg/week) and prednisone 10 mg/day; in subgroup II (16 patients with persistent clinical laboratory activity) were prescribed infliximab (Remicade) at the rate of 3 mg / kg intravenously drip according to the administration scheme 0, 2 and 6 weeks, then every 8 weeks. Subgroups they were comparable in gender, age, duration of the disease, RA activity according to DAS 28 and X-ray stage. The duration of the second stage of follow-up was 24 weeks. During an objective examination, the joint syndrome was assessed using the Ritchie index, The duration of morning stiffness was determined, and the functional health assessment index was used Assessment Questionnaire (HAQ). In 46 patients receiving MT and IF + MT therapy after 24 weeks of treatment, quality of life indicators were determined using the SF-36 questionnaire, stress tolerance and social adaptation according to the Holmes and Rage questionnaire, asthenic condition, anxiety and depression on the Tsung scale, hospital anxiety and depression scale. The effectiveness of treatment was evaluated using the DAS 28 activity index and the criteria of the American College of Rheumatology (ACR) for 20, 50, 70% improvement. The dynamics of laboratory activity of the disease was assessed by the values of ESR and C-reactive protein (CRP). Statistical processing was carried out using a computer program (Statistica 5.5 for Windows) using the Student, Mann–Whitney criteria, Fisher criterion, median chi-square, module ANOVA, Spearman correlation coefficient. Medium The values are presented as $M \pm m$. The differences were considered significant at $p < 0.05$.

THE RESULTS AND THEIR DISCUSSION

Against the background of treatment after 12 months in group I, the high values of the Ritchie index, HAQ, ESR and CRP did not significantly differ from the initial ones. There was a significant decrease in the duration of morning stiffness, but its average values remained above 60 minutes. In groups II and III, by the 12th month of follow-up, there was a significant decrease in the Ritchie index, HAQ, ESR and CRP without significant differences by group. The average RPA activity after 12 months of treatment according to DAS 28 values was regarded as moderate in group I and low in groups II and III. By 12 months of treatment, the absence of effect according to ACR criteria was noted in 5.4 and 2.4% of patients in groups I and III. A 20% improvement was observed in more than half of group I patients and a small number of patients Groups II and III. 50 and 70% improvement was noted in a third of patients in groups I and in the vast majority of patients in groups II

and III. Clinical remission was achieved in 20 (36.4%) patients of group II and 16 (40%) patients of group III. After 12 months, cancellation due to the ineffectiveness of the therapy occurred in 43 (78.1%) patients of group I, 2 (4%) patients of group II and 3 (7%) patients III groups. Withdrawal due to side effects occurred in 9 (20%) patients of group I, 8 (19.5%) patients of group II and 1 (2%) patient of group III at 8-12 months of treatment, was associated with an increase in the level of liver enzymes and the development of cytopenic syndrome. In subgroup I, after 24 weeks of MT therapy, there was a significant decrease in pain intensity according to the scale YOURS and the number of painful joints. By the end of the follow-up, patients in this group showed a tendency to decrease the values of HAQ, ESR and DAS 28, but no significant differences with baseline values were obtained. In subgroup II in patients after 24 weeks of IF+ therapy MT showed a statistically significant decrease in the number of painful and swollen joints, the VAS, HAQ and ESR scales, and a significant decrease DAS 28 from 5.3 to 3.4 ($DAS\ 28 > 3.2 < 5.1$), which corresponds to moderate disease activity and a satisfactory response to therapy according to ELUAR criteria (Δ DAS 28). After 24 weeks of treatment, significantly higher values of physical functioning were noted in subgroup II compared with those in subgroup I, vitality and role-based emotional functioning ($p < 0.05$). The results obtained indicate that an increase in physical activity against the background of a decrease in pain syndrome in patients of subgroup II affected the overall level of health and vitality, increased their social activity. Comparative indicators of stress resistance according to the Holmes questionnaire after 24 weeks of MT and MT therapy + IF. In subgroup II, after 24 weeks of therapy, a greater number of patients with high stress resistance were noted compared to patients in subgroup I (43.7 and 29.9%). Analysis of the Tsung scale indicators revealed that various degrees of depression were determined in patients in all analyzed groups, in 60.0% of patients of the first subgroup and in 100% of patients of the second subgroup after 24 weeks of pathogenetic therapy. Various degrees of asthenia were determined in 71.0 and 99.2% of patients in the studied subgroups. Against the background of the use of MT + IF combination therapy, pronounced asthenia was detected in a significantly smaller number of patients compared with patients receiving methotrexate therapy (6.2 and 20.4% at $p < 0.05$). The presence of anxiety and depression in the hospital The scale was registered in the overwhelming number of patients with RPA. A direct correlation was noted between the values of the NAQ index and the number of patients with anxiety and depressive disorders in RA. With values of the IQ index ≥ 1.82 , clinically pronounced anxiety and depression, moderate or severe asthenia and low resistance to stress were detected in 100% of cases. The data obtained indicate that with a decrease in functional abilities in patients with RA, the severity of anxiety and depressive disorders increases.

CONCLUSIONS

The results of the study confirmed the available information about the unsatisfactory long-term results of the strategic pyramid scheme in the treatment of RA, when less active BMARPS were prescribed at the initial stages of its development. The study proved the advantage of early cytostatic therapy using MT and LF as the first basic drugs for the treatment of patients with RPA. The results of observation of patients with active The course of RPA indicates that the combination therapy of IF and MT has obvious advantages over MT monotherapy in the absence of the effect of its use at a dose of at least 15-20 mg / week for 3 months and leads to significant clinical improvement, an increase in the functional abilities of joints in patients with RPA and an improvement in quality of life. Assessment of

the psychological status of patients with RPA indicates the presence of anxiety, depression and asthenia in the vast majority of the examined. There is a direct correlation between the index values Q and the number of RA patients with anxiety and depressive disorders. The results obtained indicate the need to objectively assess the psychological status of patients with RPA using multifactorial psychological tests for timely detection persons in need of special psychological assistance and solving the issue of the need to include modern antidepressants in complex therapy.

LITERATURE

1. Uzokov, J. B., Khusainova, M. A., Eshmamatova, F. B., & Mamadiyurova, M. M. (2023). Correction of violations rheology of blood in ischemic heart disease. *Science and Education*, 4(2), 153-159.
2. Khaydarov, S. N., Khusainova, M. A., Uzokov, J. B., & Makhmudova, K. D. (2023). Heart failure and the risk of hypoglycemia. *Science and Education*, 4(5), 222-231.
3. Khusainova, M. A., Khaydarov, S. N., Uzokov, J. B., & Karabayeva, G. K. (2023). KIDNEY CONDITION IN PATIENTS WITH CHRONIC HEART FAILURE. *Oriental renaissance: Innovative, educational, natural and social sciences*, 3(2), 102-112.
4. Uzokov, J. B., Khusainova, M. A., Bekmuradova, M. S., & Makhmudova, K. D. (2023). Dynamics of quality of life indicators during personalized rehabilitation of patients with rheumatoid arthritis with arterial hypertension. *Science and Education*, 4(5), 196-204.
5. Khusainova, M. A., Bekmuradova, M. S., Makhmudova, K. D., & Uzokov, J. B. (2023). Echocardiographic changes of the left ventricle in bronchial asthma. *Science and Education*, 4(5), 214-221.
6. Khusainova, M. A., Khaydarov, S. N., Uzokov, J. B., & Shonazarova, N. K. (2023). QUALITY OF LIFE IN PATIENTS WITH CHOLELITHIASIS IN THE LONG-TERM PERIOD AFTER CHOLECYSTECTOMY. *Oriental renaissance: Innovative, educational, natural and social sciences*, 3(2), 231-239.
7. Khusainova, M. A., Gafforov, K. K., Uzokov, J. B., & Tairova, Z. K. (2023). THE CHANGE IN THE QT INTERVAL IS A MARKER OF THE SEVERITY OF LIVER CIRRHOSIS. *Oriental renaissance: Innovative, educational, natural and social sciences*, 3(2), 94-101.
8. Khusainova, M. A., Gafforov, K. K., Uzokov, J. B., & Tairova, Z. K. (2023). THE CHANGE IN THE QT INTERVAL IS A MARKER OF THE SEVERITY OF LIVER CIRRHOSIS. *Oriental renaissance: Innovative, educational, natural and social sciences*, 3(2), 94-101.
9. Rustamovich, T. D., Alisherovna, K. M., Baxtiyorovich, U. J., & Abdurakhmonovich, M. M. (2022). Painless Cardiac Ischemia in Women with Rheumatoid Arthritis. *Texas Journal of Medical Science*, 13, 95-98.
10. Alisherovna, K. M., Rustamovich, T. D., Baxtiyorovich, U. J., & Sobirovna, S. M. (2022). Diabetes Mellitus and Hyperglycemia in Patients with Rheumatoid Arthritis. *Texas Journal of Medical Science*, 13, 99-103.
11. Alisherovna, K. M., Rustamovich, T. D., & Baxtiyorovich, U. J. (2022). The Use of Trimetazidine in Patients with Type 2 Diabetes Mellitus Who Have Suffered a Myocardial Infarction. *Czech Journal of Multidisciplinary Innovations*, 10, 35-41.
12. Khabibovna, Y. S., Alisherovna, K. M., Tashtemirovna, E. M. M., & Baxtiyorovich, U. J. (2023). THE EFFECTIVENESS OF THYROSTATICS IN THE TREATMENT OF. *Journal of new century innovations*, 29(1), 79-88.

13. Alisherovna, K. M., Akramovna, I. K., Bakhtiyorovich, U. J., Nizamitdinovich, K. S., Jasurovna, J. S., Kairatovna, R. A., & Abdukholikovna, E. S. (2023). Exacerbations of chronic obstructive pulmonary disease and coronary atherosclerosis. *Journal of new century innovations*, 39(1), 176-178.
14. Bakhtiyorovich, U. J., Alisherovna, K. M., & Mamasoliyevna, D. N. (2023). Features of cognitive impairment in patients with chronic kidney disease at predialysis stages. *World Bulletin of Public Health*, 22, 49-54.
15. Alisherovna, K. M., Khabibovna, Y. S., Nizamitdinovich, K. S., & Bakhtiyorovich, U. J. (2023). CYSTATIN and KIDNEY FUNCTION. *Journal of new century innovations*, 38(2), 220-225.
16. Khabibovna, Y. S., Alisherovna, K. M., Tashtemirovna, E. M. M., Totlibayevich, Y. S., Nizamitdinovich, K. S., & Bakhtiyorovich, U. J. (2023). DIAGNOSTIC VALUE OF CYSTATIN C IN PATIENTS WITH HYPERTENSION AND OBESITY. *World Bulletin of Public Health*, 22, 55-59.
17. Davranovna, M. K. D. K., Alisherovna, K. M., & Erkinovna, K. Z. (2024). CARDIAC ARRHYTHMIAS IN PATIENTS WITH RHEUMATOID ARTHRITIS. *Spectrum Journal of Innovation, Reforms and Development*, 26, 65-71.
18. Nizamitdinovich, K. S., Alisherovna, K. M., & Erkinovna, K. Z. (2024). ASSESSMENT OF THE RISK OF DEVELOPING DIABETES MELLITUS FOR MEN. *Spectrum Journal of Innovation, Reforms and Development*, 26, 114-123.
19. Alisherovna, K. M., Nizamitdinovich, K. S., & Erkinovna, K. Z. (2024). THE EFFECTIVENESS OF BISOPROLOL AND METFORMIN IN ARTERIAL HYPERTENSION AND METABOLIC SYNDROME. *Spectrum Journal of Innovation, Reforms and Development*, 26, 106-113.
20. Erkinovna, K. Z., Alisherovna, K. M., & Davranovna, M. K. (2024). ARTERIAL HYPERTENSION AND ARRHYTHMIA. *Spectrum Journal of Innovation, Reforms and Development*, 26, 72-78.
21. Akramovna, I. K., & Alisherovna, K. M. (2024). CAUSES OF ARRHYTHMIA DURING PREGNANCY. *Journal of new century innovations*, 45(3), 34-41.
22. Bakhtiyorovich, U. J. (2024). METABOLISM REGULATOR IN PATIENTS WITH CHRONIC HEART FAILURE AND ANEMIA OF CHRONIC DISEASES. *Journal of new century innovations*, 45(3), 3-12.
23. Bakhtiyorovich, U. J. (2024). FEATURES OF THE COGNITIVE STATUS IN WOMEN WITH IRON DEFICIENCY ANEMIA. *Spectrum Journal of Innovation, Reforms and Development*, 24, 27-32.
24. Alisherovna, K. M., Mansurovna, M. D., Erkinovna, N. D., Farxodovna, X. R., Toxirovna, M. M., Tolibovna, R. D., & Yorkinovna, E. N. (2024). ARTERIAL HYPERTENSION AND THYROID STATUS IN PATIENTS OF DIFFERENT AGES. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 122-129.
25. Erkinovna, K. Z., Alisherovna, K. M., Bakhtiyorovich, U. J., & Djamshedovna, K. D. (2023). METABOLIC SYNDROME IN RHEUMATOID ARTHRITIS. *Journal of new century innovations*, 38(2), 203-211.
26. Yarmukhamedova, S., Nazarov, F., Mahmudova, X., Vafoeva, N., Bekmuradova, M., Gaffarov, X., ... & Xusainova, M. (2020). Features of diastolic dysfunction of the right ventricle in patients with hypertonic disease. *Journal of Advanced Medical and Dental Sciences Research*, 8(9), 74-77.

27. Alisherovna, K. M., Davranovna, M. K., & Erkinovna, K. Z. (2024). CORONARY HEART DISEASE AND OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN. *Spectrum Journal of Innovation, Reforms and Development*, 26, 40-45.
28. Xaydarov, S. N., & Normatov, M. B. (2021). DETERMINATION OF IRON DEFICIENCY ANEMIA AT THE PREGNANCY PERIOD. *Scientific progress*, 2(4), 325-327.
29. Yarmukhamedova, S., Nazarov, F., Mahmudova, X., Vafoeva, N., Bekmuradova, M., Gafarov, X., ... & Xusainova, M. (2020). Study of indicators of intracardial hemodynamics and structural state of the myocardium in monotherapy of patients with arterial hypertension with moxonidin. *Journal of Advanced Medical and Dental Sciences Research*, 8(9), 78-81.
30. Alisherovna, K. M., Akramovna, I. K., & Kairatovna, R. A. (2024). THE EFFECTIVENESS OF TREATMENT OF PATIENTS WITH OSTEOARTHRITIS WITH CARDIOVASCULAR DISORDERS IN METABOLIC SYNDROME. *Ta'lim innovatsiyasi va integratsiyasi*, 18(5), 223-230.
31. Normatov, M. B. (2023). Features of management of patients with chronic heart failure and diabetes mellitus. *Science and Education*, 4(5), 251-259.
32. Khabibovna, Y. S., & Buribaevich, N. M. (2020). Study Of Parameters Of Central Hemodynamics In Patients With Chronic Glomerulonephritis. *Достижения науки и образования*, (13 (67)), 57-59.
33. Buribayevich, N. M. (2022). Treatment of Chronic Heart Failure in Patients with Type 2 Diabetes Mellitus. *Central Asian Journal of Medical and Natural Science*, 3(1), 183-186.
34. Alisherovna, K. M., Akramovna, I. K., & Baxtiyorovna, O. K. (2024). THE COURSE OF CHRONIC ISCHEMIC PANCREATITIS IN PATIENTS WITH CORONARY HEART DISEASE. *Ta'lim innovatsiyasi va integratsiyasi*, 18(5), 231-239.
35. Buribayevich, N. M. (2022). DIASTOLIC DYSFUNCTION AND REMODELING LEFT VENTRICLE DEPENDING ON THE CONTROL GLYCEMIA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS. *Spectrum Journal of Innovation, Reforms and Development*, 7, 96-100.
36. Buribayevich, N. M. (2022). Index of Functional Changes in the Assessment Adaptive State of Comorbid Patients Treated with Trimetazidine. *Czech Journal of Multidisciplinary Innovations*, 10, 42-48.
37. Alisherovna, K. M., Akramovna, I. K., & Yorkinovna, E. N. (2024). CLINICAL AND MORPHOLOGICAL CRITERIA OF COLITIS IN PATIENTS WITH CHRONIC ISCHEMIC DISEASE OF THE DIGESTIVE SYSTEM. *Ta'lim innovatsiyasi va integratsiyasi*, 18(6), 6-13.
38. Buribayevich, N. M. (2022). Applications the drug nicomex at treatment of patients with chronic heart failure and type 2 diabetes mellitus.
39. Khabibovna, Y. S., Alisherovna, K. M., Nizamitdinovich, K. S., & Totlibayevich, Y. S. (2023). Features of heart failure in patients with thyrotoxicosis. *Journal of new century innovations*, 29(1), 89-97.
40. Alisherovna, K. M., Erkinovna, S. D., Duskobilovich, B. S., & Samandarovich, T. H. (2024). ARTERIAL HYPERTENSION IN THYROTOXICOSIS AND REMODELING OF THE LEFT VENTRICLE OF THE HEART. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 114-121.
41. Khabibovna, Y. S., Alisherovna, K. M., Tashtemirovna, E. M. M., Nizamitdinovich, K. S., & Abdukadirovna, A. S. (2023). ANTITHROMBOTIC THERAPY IN CARDIOLOGICAL PATIENTS. *Journal of new century innovations*, 39(1), 169-171.

42. Khabibovna, Y. S., Alisherovna, K. M., Totlibayevich, Y. S., & Davranovna, M. K. (2023). PAINLESS CARDIAC ISCHEMIA AND RHEUMATOID ARTHRIT. *Journal of new century innovations*, 29(1), 98-105.
43. Alisherovna, K. M., Yaxshiboyevich, U. M. R., & Yigitaliyevich, B. A. (2024). EVALUATION OF A NATRIURETIC PEPTIDE TO OPTIMIZE THE MANAGEMENT OF COMORBID PATIENTS WITH THYROTOXICOSIS AND HEART FAILURE. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 62-70.
44. Khabibovna, Y. S., Alisherovna, K. M., Nizamitdinovich, K. S., Tashtemirovna, E. M. M., Abdukadirovna, A. S., & Jasurovna, J. S. (2023). DEPRESSION, ANXIETY AND QUALITY OF LIFE IN PATIENTS WITH ATRIAL FIBRILLATION. *Journal of new century innovations*, 39(1), 185-189.
45. Nizamitdinovich, K. S., Khabibovna, Y. S., Alisherovna, K. M., & Tashtemirovna, E. M. M. (2023). Spinal Injury for Rheumatoid Arthritis. *Miasto Przyszłości*, 40, 426-432.
46. Alisherovna, K. M., Erkinovna, S. D., Yazdonkulovna, X. M., & Zafarovna, C. M. M. (2024). ATRIAL FIBRILLATION IN THYROTOXICOSIS–DETERMINANTS OF DEVELOPMENT AND CONSERVATION. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 103-113.
47. Khabibovna, Y. S., Alisherovna, K. M., Erkinovna, K. Z., & Djamshedovna, K. D. (2023). Gender Characteristics of the Course of Rheumatoid Arthritis. *Miasto Przyszłości*, 40, 438-442.
48. Tashtemirovna, E. M. M., Khabibovna, Y. S., Alisherovna, K. M., & Erkinovna, K. Z. (2023). Angiopathy in Rheumatoid Arthritis. *Miasto Przyszłości*, 40, 418-425.
49. Alisherovna, K. M., Habibulloyevna, I. M., & Voxidovna, R. F. (2024). STRUCTURAL AND FUNCTIONAL FEATURES OF THE LEFT VENTRICLE IN PATIENTS WITH HEART FAILURE IN ISCHEMIC HEART DISEASE AND THYROTOXICOSIS. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 71-81.
50. Khabibovna, Y. S., & Alisherovna, K. M. (2024). STRESS TESTING IN PATIENTS WITH CORONARY HEART DISEASE. *Journal of new century innovations*, 45(3), 28-33.
51. Khabibovna, Y. S., & Xudoyberdiyevich, G. X. (2024). THE POSSIBILITIES OF COENZYME Q10 AS PART OF THE COMPLEX THERAPY OF PATIENTS WITH CHRONIC HEART FAILURE. *Spectrum Journal of Innovation, Reforms and Development*, 25, 116-123.
52. Alisherovna, K. M., Ismatullayevich, M. A., & Nuriddinovna, E. N. (2024). FEATURES OF HEART FAILURE IN PATIENTS WITH CORONARY HEART DISEASE AND THYROTOXICOSIS. *Ta'lim innovatsiyasi va integratsiyasi*, 19(4), 52-61.
53. Yarmukhamedova, S. K., Alisherovna, K. M., Tashtemirovna, E. M. M., & Nizamitdinovich, K. S. (2023). The Effectiveness of Trimetazidine in Arrhythmias. *Miasto Przyszłości*, 33, 215-221.
54. Yarmukhamedova, S. K., & Gafforov, X. X. (2024). Indicators of daily blood pressure monitoring in patients with osteoarthritis with cardiovascular disorders in case of metabolic syndrome. *Science and Education*, 5(4), 50-55.