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**THE MORPHOFUNCTIONAL STATUS OF ERYTHROCYTES IN PATIENTS WITH
CHRONIC KIDNEY DISEASE AND RHEUMATOID ARTHRITIS**

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Rheumatoid arthritis (RA) is a chronic crippling disease that can affect various organ systems including the kidney. Renal involvement in RA is clinically meaningful because it worsens the course of primary disease and increases mortality. Subjects hospitalized for RA are significantly more likely to have a recorded cause of death due to renal failure. Proteinuria may be the first clinical sign in many renal disorders, for example, in amyloidosis patients. Erythrocytes, in addition to oxygen transport function, occupy a prominent place in the regulatory exchange processes in the body, providing microcirculation of organs and tissues, in particular, the kidneys.

The aim: to study morphofunctional properties of erythrocytes at different stages of evolution of chronic kidney disease (CKD) in patients with RA. The study involved 113 patients with RA II-III degree of activity. According to a survey of patients were divided into four groups (I-patients with RA without renal disease (n=20), II-patients with RA with CKD stage I (n=34), III-patients with RA with the presence of CKD stage II (n=31), IV-patients with RA with the presence of CKD stage III (n=28). Comparison group was 20 healthy individuals. The index of erythrocytes deformability, the relative viscosity of the erythrocyte suspension (RVES), and the peroxide hemolysis of red blood cells (PGE) were studied in addition to conventional laboratorial tests.

The progressive violations of the morphofunctional properties of erythrocytes in patients with rheumatoid arthritis with CKD I-III are determined. It has been found a significant decrease of the erythrocyte deformability index ($p < 0.05$) and the increase of the RVES ($p < 0.05$). It has been found the direct correlation between the RVES and the proteinuria ($r = 0.87$), the inverse correlation between the RVES and the glomerular filtration rate ($r = -0.71$) ($p < 0.05$). PGE increased in patients with RA with the presence of CKD and its growth stage. Glomerular filtration rate and RVES can be interdependent processes that reinforce each other. Thus, the increasing of RVES promotes the formation of microthrombi in the glomeruli capillaries, impairs filtration and contributes to the progression of kidney damage and the development of CKD. At the same time, decreased GFR indirectly causes a deterioration in the rheological blood properties and an RVES increase in the glomeruli and accelerates the progression of impaired renal function.

Thus, analyzing the overall change in the morphofunctional properties of erythrocytes, it has been found that the indicators of RVES and PGE significantly increase with the presence of RA, but with the advent of kidney damage, changes are becoming progressive. Indicators of the erythrocyte deformability index are reduced in patients with RA with involvement in the pathological process of the kidneys, which can be regarded as one of the methods of early kidney damage in this category of patients. The most severe microcirculatory changes were found in patients with RA with CKD III stage. These findings indicate the important role of microcirculatory disorders in this category of patients and the necessity of their correction.

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**EMOTIONAL INTELLIGENCE
AS A PSYCHOLOGICAL RESOURCE OF SPORTSMEN**

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Training programmes for athletes that are solely based on the technical and physical aspects of training have their limitations. It is only when they are also based on a proper understanding of psychology of an athlete that sportsmen and women can attain their true potential. In practical terms this means that when a sports trainer is devising a training programme for an athlete the trainer needs to recognise that the unique psychology of an individual athlete is a resource that can be used to boost the athlete's performance.