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KIDNEY PROBLEMS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Kidney involvement in RA is clinically meaningful because it worsens the course of primary disease and increases mortality. The pathogenesis of renal damage in rheumatoid arthritis (RA) is a complex combination of congenital and acquired defects in immunoregulatory mechanisms. 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.

The aim: to study the changes of cytokines at different stages of chronic kidney disease (CKD) progression in patients with RA.

The study involved 120 patients with RA II-III. The presence of CKD was established according the classification adopted by the 2nd Congress of Nephrology Ukraine. The formula CKD-EPI was used for determination of glomerular filtration rate (GFR). Patients were divided into four groups according presence of CKD: I- RA patients without CKD (n=22), II- RA with CKD stage I (n=34), III- RA with CKD stage II (n=33), IV- RA with CKD stage III (n=31)). Comparison group was 20 healthy individuals. In addition to conventional laboratorial tests, serum cytokines (transforming growth factor- β 1 (TGF- β 1), tumour necrosis factor- α (TNF- α), interleukin-1 β (IL-1 β), IL-10) were studied by ELISA.

In patients with RA in the evolution of CKD I-III the disbalance of pro- and anti-inflammatory cytokines was found: increase in the level of proinflammatory IL-1 β ($p < 0,05$) and TGF- β 1 ($p < 0,05$) in all patients with rheumatoid arthritis, decrease in the level of anti-inflammatory IL-10 ($p < 0,05$), which was more pronounced in the CKD stage III.

Correlation relationships were established between TGF- β 1 and the age of patients ($r = 0,62$) ($p < 0,05$) and daily proteinuria ($r = 0,68$) ($p < 0,05$), between TNF- α and proteinuria ($r = 0,63$) ($p < 0,05$) inverse correlation between TGF- β 1 and GFR ($r = -0,55$) ($p < 0,05$).

Thus, there was established the active participation of pro- and anti-inflammatory cytokines in the development of immune inflammation in patients with RA, a large prognostic value for the growth of TGF- β 1 in the progression of CKD in RA. These studies will allow in further to adjust the treatment of patients with rheumatoid arthritis and to prevent the progression of complications from kidney disease in time.

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PATHOGENETIC MECHANISMS OF FUNCTIONAL RENAL IMPAIRMENT IN PATIENTS WITH CHRONIC HEPATITIS

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In patients with chronic hepatitis (CH) in the period of exacerbation the development of edema syndrome is possible. It should be kept in mind that in the emergence of water-electrolyte imbalance not only hypoproteinemia, but also changes in the function of the kidneys play a role. Today there is no doubt that a significant role in the pathogenesis of the progression of liver diseases of different etiologies belongs to the free radical processes (FRP) and the syndrome of endogenous intoxication (SEI).

Objective of the work is to establish changes in renal function in patients with CH, as well as clarify the role of FRP and the SEI on the development of renal dysfunction.

22 patients with low-active CH of non-viral etiology with disease duration from 3 to 6 years were examined. Clinically peripheral edema was diagnosed in 21% of patients. The functional state of the kidneys was studied under conditions of 12-hour spontaneous diuresis and when conducting a water load in the amount of 0.5% of body weight. FRP were assessed by the level of malonic aldehyde in the blood (MA), the degree of endotoxemia by the level of medium molecular peptides (MMP). The control group consisted of 20 healthy persons of the corresponding age.