were found. There were markedly pronounced dystrophic changes of epithelial tubules. In the proximal tubules the phenomena of hyaline-drop dystrophy was observed, vacuolar dystrophy rarely. There was perivascular infiltration by lymphocytes and plasmocytes. The lympho-hystiocyties infiltration was observed around the glomerulus. The vacuolar degeneration of epithelial cells from the side of the direct distal tubules was observed.

The stroma of the renal cortex and medulla was swollen; the phenomena of lymphocyte infiltration were present. Vessels were moderately dilated, full of erythrocytes, some areas was with small extravasation were present. Most of the arterioles were normal, but sometimes plasma impregnation was detected.

Conclusion: In experimental hyperthyreosis microcirculation lesions and development of degenerative changes of the structural components of epithelial cells of proximal and distal tubules in the kidney were revealed.

CHANGE OF C-REACTIVE PROTEIN AND TUMOR NECROSIS FACTOR-α LEVELS IN DIABETES MELLITUS TYPE 2 AND L-ARGININE-L-GLUTAMATE

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The **Purpose** of our study was to determine C-reactive protein (CRP) and tumor necrosis factor- α (TNF-α) levels in patients with nonalcoholic fatty liver disease (NAFLD) in type 2 diabetes mellitus and their correction with NO synthesis precursor L-arginine-L-glutamate.

Materials and methods: We examined 30 patients with type 2 diabetes aged 35 to 65, who had symptoms of NAFLD. The functional state of liver, changes in plasma levels of pro-inflammatory cytokine TNF-α and CRP were evaluated in patients treated with L-arginine-L-glutamate.

Results: It was determined that in patients with type 2 diabetes and NAFLD the levels of TNF-α and CRP were significantly higher than in patients with type 2 diabetes and healthy subjects. A statistically significant decrease of TNF-α and CRP levels was established 8-10 days after the beginning of administration of L-arginine-L-glutamate in patients with type 2 diabetes and NAFLD as compared to the control group (patients with type 2 diabetes who did not take L-arginine-L-glutamate). The treatment was followed by improvement of functional liver tests (bilirubin, general cholesterol, triglycerides, β-lipoproteins, alaninaminotransferase, and general protein) and liver ultrasound picture.

Conclusions: Thus, administration of the NO-synthesis precursor L-arginine-L-glutamate in patients with diabetes mellitus type 2 and NAFLD contributes to the decrease of systemic inflammation, in particular - C-reactive protein and tumor necrosis factor- α and improvement of functional liver tests.

Key words: C-reactive protein, tumor necrosis factor- α, Diabetes Mellitus, L-arginine-L-glutamate.

INFLUENCE OF ESSENTIAL PHOSPHOLIPIDS ON THE LIVER STRUCTURE OF WHITE RATS IN EXPERIMENTAL HYPERTHYREOSIS

Svystun I.

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