



обміну, то уміст загальних ліпідів і загального холестерину на фоні введення тваринам дексаметазону вірогідно зросли у тварин обох вікових груп. Слід зазначити, що у плазмі крові 18-місячних шурів показники вмісту загальних ліпідів і загального холестерину були вищими (на 36,5 і 83,3% відповідно при порівнянні з контрольною групою тварин зазначеного віку), у той час як у 3-місячних діабетичних тварин лише на 26,7 і 58% відповідно перевищували показники тварин контрольної групи. Окрім того, у діабетичних шурів обох вікових груп відзначалося вірогідне, порівняно з показниками відповідної за віком контрольної групи тварин, зниження умісту холестерину ЛПВЩ: на 65% у 18-місячних та на 63,7% у 3-місячних шурів.

Отже, дексаметазоновий діабет у шурів різних вікових груп супроводжується суттєвими порушеннями ліпідного обміну, що супроводжується зростанням у плазмі крові вмісту загальних ліпідів і загального холестерину та зниженням умісту холестеролу ЛПВЩ. Двотижневе введення дексаметазону 18-місячним шурям викликає суттєвіші, ніж у 3-місячних тварин, зміни досліджуваних показників ліпідного обміну.

## СЕКЦІЯ 6

### АКТУАЛЬНІ ПИТАННЯ В КЛІНІЦІ ВНУТРІШНІХ ХВОРОБ

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#### **THE INFLUENCE OF HEPARHIZINE ON THE EXTRACELLULAR MATRIX COMPONENTS CONDITION AND THE INTENSITY OF FIBROUS FORMATION IN THE LIVER IN PATIENTS WITH NON-ALCOHOLIC STEATOHEPATITIS THAT COMORBID WITH CHRONIC KIDNEY DISEASE**

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Aim of the research was to find out the features of liver fibrosis biochemical markers with non-alcoholic steatohepatitis in patients with obesity stages I-II and chronic kidney disease stages I-III, to establish the effectiveness of Heparhizine influence on the state of carbohydrate-protein components of the connective tissue of the liver and kidneys extracellular matrix.

Material and methods of the research: 98 patients with non-alcoholic steatohepatitis on the background of obesity stages I-II were examined: 52 patients with non-alcoholic steatohepatitis (1st group) (without accompanying chronic kidney disease), 46 patients with non-alcoholic steatohepatitis with a comorbid chronic kidney disease stages I-III (2nd group). The control group consisted of 20 practically healthy persons (PIIPs) with the corresponding age and sex. Biopsy of the liver was performed on 32 patients with non-alcoholic steatohepatitis with the accompanying of chronic kidney disease stages I-III, 28 patients with non-alcoholic steatohepatitis without chronic kidney disease. Patients of both groups with non-alcoholic steatohepatitis received Heparhizine treatment (Glycyrrhizin 40 mg, Glycine 400 mg, L-cysteine hydrochloride 20 mg) (Valartin Pharma) by intravenous administration of 20 ml of the drug for 10 days followed by enteral administration of 2 tablets of Heparhizine (1 tablet: Glycyrrhizin 25 mg, Glycine - 25 mg, Methionine - 25 mg) 3 times a day for 80 days. Patients with non-alcoholic steatohepatitis with a comorbid flow of non-alcoholic steatohepatitis, obesity and chronic kidney disease stages I-III, except Heparhizine, received baseline therapy of chronic kidney disease stages I-III: chronic pyelonephritis (course of antibacterial drugs, uroseptics, Canephron). The examinations were carried out before the treatment and on the 90th day of treatment.

The study showed that in the case of non-alcoholic steatohepatitis that develops on the background of obesity and chronic kidney disease stages I-III, the presence of fibrotic changes in the liver tissue was established, which according to the biochemical index of fibrosis, exceeds in those patients with non-alcoholic steatohepatitis without comorbidity with kidney pathology. In patients with non-alcoholic steatohepatitis, which was accompanied by obesity, a significant increase in the synthesis of collagen and glycosaminoglycans which was accompanied by an ineffective resorption of newly formed collagen due to inhibition of the collagenolytic activity of blood plasma, due to significant activation of proteinase inhibitors ( $\alpha_2$ -MG) was observed with a significant imbalance in the system of connective tissue metabolism. Under the conditions of the comorbidity of non-alcoholic steatohepatitis with chronic kidney disease stages I-III, collagen synthesis and resorption are activated, but the anabolism processes predominate, in spite of the compensatory activation of collagenolysis, with a substantial hyperproduction of actinic-phase proteins, fibronectin, glycosaminoglycans, fibroblast growth factor and lead to progressive fibrosis of the liver and disturbance of its functions.

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#### **INDICATOR VALUES OF IMMUNE INFLAMMATION IN PATIENTS WITH DIABETIC NEPHROPATHY AND CONCOMITANT OBESITY**

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The pathogenesis of diabetes type 2 and obesity are influenced by different genetic factors, disorders of the immune balance and lifestyle factors. The impact of these pathological processes increases the risk of vascular complications and causes significant social and economic problems. The negative trend requires a detailed examination of all possible causes of chronic inflammation, which is one of the key reasons for the progression of the kidney failure.