

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

**105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
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**STATUS OF COMPONENTS OF THE CONNECTIVE TISSUE OF THE
EXTRACELLULAR MATRIX OF THE LIVER IN PATIENTS WITH TYPE 2 DIABETES
WITH DIABETIC KIDNEY DISEASE, THE EFFECTIVENESS OF THEIR CORRECTION**

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Introduction. The relevance of the problem of the comorbid course of nonalcoholic steatohepatitis (NASH), type 2 diabetes mellitus (DM2), and diabetic kidney disease (DKD) lies in the rapid progression of all comorbid diseases, decompensation of carbohydrate metabolism, and the development of hepatocellular and renal failure. The leading links in the pathogenesis of NASH are hepatocyte steatosis and mesenchymal inflammation, each of which independently can induce liver tissue fibrosis and the progression of NASH to liver cirrhosis.

The aim of the study. To investigate the state of metabolism of collagen and carbohydrate-protein components of the extracellular matrix of the liver, the intensity of collagenolysis in patients with NASH with DM2, depending on the presence of diabetic kidney disease and its stage, and to study the effectiveness of their correction with the drug quercetin and bicyclol.

Material and methods. 92 patients took part in the study, including 70 patients with comorbid pathology of NASH, DKD on the background of DM2 and 22 patients with NASH and DM2 without DKD. Depending on the prescribed treatment, the examined patients were randomly divided into 3 groups: 1 group - control, which consisted of 28 people who received a hypocaloric diet taking into account the restrictions of diet No. 9, essential phospholipids, namely Essentiale forte H 300 mg 2 capsules. 3 times a day for 90 days, Metformin-Teva 1000 mg per day, Rosuvastatin-Teva 5 mg once a day for 2 months. The 2nd group consisted of 32 patients who, in addition to similar recommendations regarding diet and treatment, additionally received a preparation of quercetin and povidone, namely Corvitin 500 mg intravenously for 10 days, then prescribed a preparation of quercetin, namely Quertin, chewable tablets in a dose of 40 mg 3 times per day for 80 days. The 3rd group also consisted of 32 patients who received a similar therapy to the traditional one, but instead of essential phospholipids, the drug Bicyclol was used in a dose of 25 mg 3 times a day for 90 days. The comparison group for the presentation of reference averages consisted of 30 healthy people of the appropriate age.

Results. The course of NASH with DM2 is characterized by an increase in the activity of the synthesis of protein components of the extracellular matrix of the liver (ECM) of the liver, in particular, collagen, with simultaneous inhibition of its breakdown. The collagenolytic activity of blood plasma in patients with comorbid conditions decreased with increasing stage of DKD. Also, in the 3rd group, we registered a higher degree of degradation of fucoglycoproteins compared to the 1st group and the maximum activation of the synthesis of hexosamines, which did not depend on the stage of DKD. The analysis showed that even with treatment for 30 days, the therapeutic program of patients of groups 2 and 3 affects the exchange of connective tissue components, inhibits the development of fibrotic reactions in patients with NASH. We have also established the maximum corrective effect of Bicyclol on the exchange of glycosaminoglycans.

Conclusions. Complex therapy of NASH and type 2 diabetes with DKD with the addition of quercetin for 90 days is more effective than traditional therapy in correcting fibrotic processes in the liver. However, Bicyclol treatment of non-alcoholic steatohepatitis in patients with type 2 diabetes for 3 months is effective in significantly reducing the degree of hepatocyte steatosis and the liver fibrosis index due to the optimization of the spectrum of connective tissue components of the extracellular matrix with a decrease in the blood content of collagen anabolism markers, an increase in the blood content of collagen catabolism markers due to the activation of collagenolytic activity of plasma, a decrease in the blood content of hexosamines and carbohydrate-protein markers of the degradation of fucoglycoproteins of ECM of the liver.