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Antofichuk T.M.

INTENSITY OF LIVER PARENCHYM FIBROSIS IN PATIENTS WITH ALCOHOLIC STEATOHEPATITIS ACCORDING TO THE PRESENCE OF DYSMETABOLIC IRON OVERLOAD SYNDROME

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The aim of the study is to establish the fibrosis reaction intensity in the liver and progression patterns of liver fibrosis in patients with non-alcoholic steatohepatitis with dismetabolic iron overload syndrome. 60 patients with non-alcoholic steatohepatitis (NASH), 25 practically healthy persons (PHIs) of the corresponding age and sex were examined. Examinations were performed in the gastroenterological, therapeutic 1 and 2, hematology departments of Chernivtsi RCNE "Chernivtsi Emergency Hospital" in 2015-2020. The diagnosis of NASH was established in accordance with the unified clinical protocols approved by the order of the Ministry of Health of Ukraine 826 of 06.11.2014. The presence of DIOS was determined in terms of NASH by three of the following laboratory markers: increase in blood ferritin content of more than 300 µg/l in men and menopausal women and more than 200 µg/l in women of childbearing age; increase in serum iron above reference values; decrease in the total iron-binding capacity of blood serum; increase in iron saturation of transferrin by more than 45%.

The study has shown activation of collagen synthesis processes with an increase in blood protein-bound oxyproline - in the presence of DIOS 1.6 times ($p < 0.05$), in the absence - 1.3 times ($p < 0.05$), as well as a slight increase in the intensity of collagen breakdown - with an increase in the content of free oxyproline in the blood in NASH with DIOS- 1.2 times ($p > 0.05$). For NASH without DIOS, the blood content of collagenolytic activity tended to decrease ($p > 0.05$). Somewhat divergent data were obtained in the CLA analysis in NASH: for SRS registered an increase in CLA by 13.8% ($p < 0.05$), but in its absence, CLA in NASH was reduced by 21.3% ($p < 0.05$) of the presence of a probable intergroup difference ($p < 0.05$). That is, the activated processes of collagen synthesis in NASH are accompanied by inhibition of its degradation with accumulation in extracellular matrix. In patients with NASH, we also found a significant increase in the content of hexosamines in the blood: in DIOS 1.3 times ($p < 0.05$), in its absence - 1.2 times ($p < 0.05$), the content of sialic acids, respectively - 1.4 and 1.2 times ($p < 0.05$), and accelerated degradation of fucoglycoproteins (fucose not bound to protein blood content increased - 1.8 and 1.6 times, respectively ($p < 0.05$)). The consequence of the registered processes was an increase in the integrated Fibro-test indicator for NASH with DIOS- 2.1 times compared to the indicator in PHIs ($p < 0.05$), for NASH without DIOS- 1.6 times ($p < 0.05$) with the presence of a probable intergroup

difference ($p < 0.05$). It was found that in patients with NASH F0 stage of fibrosis was registered in 35.7% against 16.7% in NASH with DIOS ($p < 0.05$). F1 stage was registered in 38.1% of patients with NASH against 27.7% of cases of NASH with DIOS ($p > 0.05$). In patients with NASH F2, the stage of fibrosis was registered in 23.8% against 38.9% in NASH with DIOS ($p < 0.05$). At the same time, F3 stage of fibrosis in patients with NASH was registered in 2.4% against 16.7% in NASH with DIOS ($p < 0.05$).

Thus, in patients with NASH, the following patterns of liver fibrosis were established: activation of collagen synthesis processes (in the presence of DIOS 1.6 times ($p < 0.05$), in the absence - 1.3 times ($p < 0.05$)), a slight increase the intensity of collagen breakdown in NASH with DIOS- 1.2 times ($p > 0.05$); increase in CLA by 13.8% ($p < 0.05$) for DIOS, however, in its absence, CLA in NASH was reduced by 21.3% ($p < 0.05$). For patients with NASH is characterized by an increase in the content of hexosamines in the blood: for DIOS in 1.3 times ($p < 0.05$) against 1.2 times ($p < 0.05$), the content of sialic acids, respectively - in 1.4 against 1, 2 times ($p < 0.05$), and accelerated degradation of fucoglycoproteins (1.8 to 1.6 times, respectively) ($p < 0.05$). The consequence of the registered processes was an increase in the integrated Fibro-test for NASH with DIOS- 2.1 times compared to the indicator in PHIs ($p < 0.05$), for NASH without DIOS- 1.6 times ($p < 0.05$).

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**THE COINFLUENCE OF THE STATE OF THE BLOOD LIPID SPECTRUM AND
CONTENT OF ADIPOKINES ON THE CLINICAL COURSE
OF NON-ALCOHOLIC FATTY LIVER DISEASE
IN THE PRESENCE OF COMORBID CHRONIC KIDNEY DISEASE**

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The purpose of the study was to find out the probable mutual influence of the state of the blood lipid spectrum of and content of adipokines in blood: leptin, adiponectin on the clinical course of non-alcoholic fatty liver disease combined with obesity depending on its form and the presence of comorbid chronic kidney disease. 444 patients were examined: of which 84 patients with non-alcoholic fatty liver disease with grade I obesity (group 1), which contained 2 subgroups: 32 patients with non-alcoholic hepatic steatosis and 52 patients with non-alcoholic steatohepatitis; 270 patients with non-alcoholic fatty liver disease with comorbid obesity of the I degree and chronic kidney disease of the I-III stage (group 2), including 110 patients with non-alcoholic steatosis of the liver and 160 patients with non-alcoholic steatohepatitis. The control group consisted of 90 patients with chronic kidney disease stage I-III with normal body weight (group 3). The mean age of patients was (45.8 ± 3.81) years.

The study shows that patients with non-alcoholic steatohepatitis and obesity without concomitant chronic kidney disease are characterized by the following changes in the blood lipid spectrum: maximum increase in blood triacylglycerols (by 2.1 times, $p < 0.05$), a probable increase in total cholesterol (by 1.4 times, $p < 0.05$) and proatherogenic low-density lipoproteins (by 1.6 times, $p < 0.05$), a probable decrease in anti-atherogenic high-density lipoproteins (by 1.6 times, $p < 0.05$), which with the addition of comorbid chronic kidney disease are likely to deepen (within 1.5-1.8 times, $p < 0.05$), in addition to hyper triacylglycerol. According to the results of the study, the content of leptin in the blood was significantly increased by 1.4 times ($p < 0.05$) compared with almost healthy individuals, which differed significantly from patients with non-alcoholic steatosis of the liver with chronic kidney disease and non-alcoholic steatohepatitis with chronic kidney disease ($p < 0.05$). The content of adiponectin in the blood was significantly reduced by 1.4 times compared with almost healthy individuals ($p < 0.05$) and also differed significantly from patients with non-alcoholic hepatic steatosis with chronic kidney disease and non-alcoholic steatohepatitis with chronic kidney disease ($p < 0.05$).

Based on the results, it was found that significant metabolic prerequisites for the development of non-alcoholic steatohepatitis against the background of obesity and chronic kidney