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**HORMONE-LIKE CYTOKINES IN PATIENTS WITH NON-ALCOHOLIC
STEATOHEPATITIS AND HYPERTENSION**

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The hormone-like cytokines are considered crucial players in inflammatory-associated disorders. Non-alcoholic fatty liver disease (NAFLD) is characterized by excess lipid accumulation and in a substantial subset of patients with inflammation in the liver – non-alcoholic steatohepatitis (NASH) development. Such cytokines play a central role in many stages of liver diseases mediating fundamental aspects of those diseases like lipid metabolism, cholestasis, fibrosis and, also, regulate crucially the development of insulin resistance. Non-invasive measurement of hormone-like cytokines could be used for screening of individuals with high metabolic risk, identify patients with a poor prognosis, assess the progression of the disease, predict the response to therapeutic treatment. Achieving these goals will reduce the need to perform a liver biopsy.

Aim: To evaluate the association of serum fibroblast growth factor 21 (FGF21) with liver fibrosis stage and metabolic markers in NASH patients with hypertension (HT).

Patients and methods: Fasting serum FGF21 was measured in 30 NASH patients with HT (mean age 50.1 ± 6.9 years; 56.6 women). In addition to basic laboratory tests and ultrasonographic examination, the Fibromax test (Biopredictive, France) were performed.

Results. NASH patients with HT have higher serum FGF21 than control group (352,4 (288,1; 431,4) pg/ml Vs 99,5 (88,2; 117,5) pg/ml ($p < 0.001$). FGF21 correlated positively with BMI - direct link - $r = 0.31$ ($p < 0.001$), total cholesterol $r = 0.41$ with, triglycerides $r = 0.36$ ($p < 0.001$); indicators of carbohydrate metabolism: with glucose - $r = 0.48$, $r = 0.41$ with insulin and $r = 0.42$ with a HOMA index ($p < 0.001$) regardless of patient gender. In logistic regression analysis, circulating FGF21 was found to be an independent predictor for subclinical atherosclerosis ($P = 0.022$) in addition to dyslipidemia and hypertension.

Conclusion. Serum FGF21 is significantly higher in NASH patients with HT, its levels correlated with markers of lipid and carbohydrate metabolism and predict subclinical atherosclerosis. FGF21 is a potential marker of NASH progression.

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**INFLUENCE OF INSULIN-LIKE GROWTH FACTOR-I AND ENDOSTATIN
IN SERUM ON LIPID PROFILE INDICATORS IN PATIENTS WITH
ACUTE MYOCARDIAL INFARCTION AND OBESITY**

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Relevance: currently, acute myocardial infarction (AMI) is the most threatening form of coronary heart disease (CHD) [1-3]. According to statistics, more than 15 million new cases of AMI are recorded worldwide each year, and its long-term effects are determined months and years after the disease.

The aim of the study was to investigate the levels of insulin-like growth factor-I (IGF-I) and endostatin in the serum and their relationship with lipid profile in patients with acute myocardial infarction and obesity.

Materials and methods: 105 patients were studied. All patients were divided into 2 groups: 1 group consisted of patients with AMI with concomitant obesity (n = 60), 2 group - patients with AMI without obesity (n = 45). The control group consisted of 20 healthy individuals. The mean age of patients in group 1 was 67.44 ± 1.34 years, and group 2 - 66.85 ± 1.72 years.

The content of IGF-I and endostatin was determined by enzyme-linked immunosorbent assay. Biochemical study included determination of total cholesterol (TH), high density lipoprotein (HDL), low density lipoprotein (LDL), very low density lipoprotein (VLDL), triglycerides (TG), performed by peroxidase method.

Mathematical computer processing of the results was performed using the software package "Statistica 10.0".

Results and discussion. There was a significant increase in TH, TG, LDL, VLDL and atherogenic factor (AF) in patients with AMI with or without obesity compared with