FINDRISC SCALE AS A TOOL FOR ASSESSING THE RISK OF LIVER FIBROSIS IN PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

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Non-alcoholic fatty liver disease is a common chronic disease that combines clinical and morphological changes in the liver: steatosis, non-alcoholic steatohepatitis, fibrosis and a possible outcome in liver cirrhosis. NAFLD is a complex group of various morphological changes in liver tissue due to metabolic changes and is characterized by the accumulation of fat droplets.

According to international studies, for every 1000 patients of a general practitioner, there are up to 300 patients with liver steatosis and 20-30 patients with non-alcoholic steatohepatitis. NAFLD remains asymptomatic and unrecognized for a long time. During the diagnostic process, possible causes of the deposition of fatty droplets in the liver are taken into account (nutritional, metabolic and genetic disorders, drug effects, the effect of some hepatotropic toxic factors)

Aim of the work. To evaluate the diagnostic value of the FINDRISC score for detecting liver fibrosis.

Material and methods. 45 patients (23 men and 22 women) aged from 35 to 64 years (average age 40.8 ± 4.1 years) were examined. Of the classical risk factors for the development of NAFLD, 35 (77.7%) patient suffered from obesity, 5 (11.1%) patient had type 2 diabetes, 30 (66.6%) had severe hyperlipidemia, and 8 (17.7%)patient had intestinal diseases, 5 (11.1%) patients took hepatotoxic drugs for a long time. All patients underwent a comprehensive clinical and laboratory examination (ALT, AST, bilirubin, lipid spectrum, blood sugar) and instrumental examination (ultrasound of the liver). Based on the anamnestic and questionnaire data, alcohol-related liver damage was excluded. The formation of T2DM risk groups was carried out using the FINDRISC scale, based on the obtained sum of points: group 1 (low risk) included persons with a score of <7, group 2 (slightly increased risk) – 7–11 points, to 3rd (medium risk) – 12–14 points, to 4th (high risk) – 15–20 points, to 5th (very high risk) >20 points.

Results. When analyzing biochemical parameters of blood serum, 95% of patients showed a significant increase in aminotransferase activity by 2-4 times. Moreover, in patients with obesity and atherogenic dyslipidemia, the concentration of AST was increased on average by 1.8 ($p<0.05$), and ALT by 2.4 ($p<0.05$) times. In patients with impaired carbohydrate metabolism, the values of AST and ALT were significantly higher, respectively, by 2.6 ($p<0.05$) and 3.3 ($p<0.05$) times. Only a small group of patients had laboratory signs of hepatic cellular failure and cholestasis. Thus, an increase in the level of total bilirubin was in 28 (62.2%) patients, ALP and γ-GTP, respectively, in 15 (33.3%) and 30 (11.0%) patients. Ultrasound of the liver revealed hepatomegaly in 40 (88. 8%) patients, increased echogenicity of the organ in 42 (93.3%), blurred vascular pattern and distal attenuation of the echo signal. According to the results of a survey using the FINDRISC scale, an increased

risk of developing type 2 diabetes (≥7 points) was detected in 68% of patients. Hepatic steatosis was diagnosed in 41% of patients. The predictive value of a positive result, i.e. the probability of detecting liver fibrosis with FINDRISC scale values >10 was 20.9%. The predictive value of a negative result, i.e. the probability of absence of liver fibrosis with FINDRISC scores <10 was 96.5%.

Conclusion. In a randomized sample of patients aged 40–60 years, the FINDRISC score can serve as a diagnostic tool for liver fibrosis and steatosis. A FINDRISC score >10 allowed the diagnosis of liver fibrosis (hepatic elastic modulus ≥5.9 kPa) with a sensitivity of 81.8% and a specificity of 61.8%. The probability of absence of liver fibrosis with FINDRISC scores <10 was 96.5%.

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