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COMPARATIVE ASSESSMENT OF DIFFERENT DIAGNOSTIC SCORES FOR PREDICTION OF NON-ALCOHOLIC LIVER DISEASE

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Several steatosis risk score was developed in order to optimize identification of persons with NAFLD (fatty liver index - FLI, hepatic steatosis index - HSI).

Our aim was to determine which one is most applicable to our study group.

Materials and Methods. 77 non-smokers with abdominal obesity without cardiovascular diseases, renal diseases, infective, malignant and autoimmune diseases. Anthropometric parameters, markers of glucose and lipid metabolism, serum levels of inflammatory markers, levels of liver enzymes, as well as ferritin and uric acid were assessed in all subjects. Fatty liver was assessed as presence or absence and grading of hepatic steatosis obtained by ultrasound scan using National Health and Nutrition Examination Survey.

Results. Anthropometric parameters as well as liver enzymes, uric acid and hsCRP were significantly higher in patients with Non-alcoholic fatty liver disease (NAFLD) (BMI 28.05±4.79 vs 34.38±9.73 kg/m², p=0.001; WC 96.15±14.27 vs 108.05 ± 11.47 cm, p=0.001; SBP 122.42±10.62 vs 128.98 ± 8.67 mmHg, p=0.01; DBP 78.33±7.57 vs 8± 5.94 mmHg, p= 0.001; hsCRP 1.98± 2.34 vs 4.34±5.56 mg/l, p=0.004; uric acid 296.76±74.06 vs 358.02±83.29 µmol/l, p=0.001; AST 21.70±5.21 vs 23.93±6.91 U/L, p= 0.014; ALT 23.00 ± 11.75 vs 30.50 ±13.70 U/L, p= 0.007). Factor derived from factor analysis that had incorporated waist circumference, hip circumference, body mass index, systolic and diastolic blood pressure, fibrinogen, hsCRP, glucose and uric acid had best discriminatory power followed with fatty liver index score (FLI) and hepatic steatosis index (HSI).

Further trails are needed to adjust existing steatosis risk scores and incorporate other markers of steatosis such as uric acid.

Key words: Non-alcoholic fatty liver disease, fatty liver index score, hepatic steatosis index
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EFFICIENCY EVALUATION OF A HEALTHY LIFESTYLE: CLINICAL FEASIBILITY OF DETERMINING BIOMARKERS - ARGINASE AND ORNITHINE DECARBOXYLASE IN PATIENTS WITH CHRONIC NON-COMMUNICABLE DISEASES

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In the 21st century, the significant prevalence of chronic non-communicable diseases (NCDs) is a topical issue of the world-class level. Up to 60% of the adult population and almost 20% of children suffer from NCDs. In the world, the “Global WHO Action Plan on Prevention and Control of Non-Communicable Diseases in 2013-2020” has been intensified[4], Ukraine continues to implement the National Program “Health - 2020: Ukrainian Dimension”[1, 2]. Within the framework of its concept, we carry out an initiative research project “Development of algorithms and technology for introducing a healthy lifestyle in patients with non-communicable diseases based on the study of psycho-emotional status” [State registration No. 0116U007798, UDC 613.616-052:159.942:616-03] [3]. According to the research, scientifically based methods for assessing healthy lifestyle in medical practice, and in particular, in patients with NCDs, have not been developed and used in practical medical practice yet. In the course of work with patients, there is a need for an objective assessment of their health status by biochemical indicators, in particular, indicators of the functional state of the liver. It is estimated that the detoxifying function of hepatocytes can indicate the level of total exotoxic effects on the patient’s body. The evaluation of the protein synthetic function may show the total level of metabolic processes in the patient. The generally accepted methods for assessing the detoxifying function of the liver (based on the content of ammonia and phenols, loading tests, etc.) are characterized by low sensitivity and are not sufficiently informative in mild to moderate hepatic lesions. At the same time, the vast majority of modern