

**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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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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Material and methods. 21 patients with subcompensated liver cirrhosis of toxic origin with a moderate activity were examined. The diagnosis was confirmed by conventional clinical, laboratory and instrumental research methods. The functional state of the kidneys was assessed under conditions of spontaneous 12-hour diuresis and during a 2-hour water load.

Results. The results of the study showed that with spontaneous diuresis, there is a slight decrease in glomerular filtration rate (GFR) with a probable increase in the level of creatinine in the blood. At the same time, the excretion of titrated acids probably increased both in general and especially by functioning nephrons. In parallel, ammonia release increased slightly and the ammonium coefficient decreased ($p < 0.05$). The pH of urine also decreased significantly, which is due to an increase in the concentration and excretion of active forms of hydrogen by functioning nephrons. These changes indicate activation of the acid-excretory function of the kidneys, which indicates, on the one hand, an adequate response of the kidneys to metabolic acidosis and, on the other, a sufficiently high activity of acid transport in the renal tubules. Against the background of water load, GFR decreased by 2.5 times and serum creatinine level increased by 50% ($p < 0.05$). Changes in the acid-secreting function of the kidneys under load conditions in patients with subcompensated cirrhosis differed from those in healthy individuals. So, if in the latter, acid secretion is activated during water diuresis, then in patients the reaction is completely opposite - the excretion of titrated acids and ammonia decreases.

Conclusions. Thus, in patients with subcompensated liver cirrhosis in conditions of spontaneous diuresis against the background of impaired renal excretory function, an increase in acid excretory function is observed, which can be regarded as a reaction to systemic acidosis. This adaptation mechanism is unstable and is disrupted even under minor loads, which must be taken into account both for the prognosis of the disease and when carrying out appropriate drug therapy.

Liakhovych O.D.

SOME METABOLIC DISORDERS IN PATIENTS WITH COMORBID NONALCOHOLIC STEATOHEPATITIS AND OBESITY, THEIR HORMONAL REGULATION

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Introduction. Many researchers have confirmed that one of the important problems of modern medicine is the study of comorbidity as one of the promising ways of solving personalized treatment, improving the overall results of therapy and reducing large-scale socio-economic consequences of a population nature.

Today, non-alcoholic fatty liver disease (NAFLD) is one of the most common diseases in hepatology, which leads to a deterioration in the quality of life and a reduction in its duration. As for the etiology of NAFLD, it is quite diverse, although its close connection with insulin resistance (IR) is noted. The liver is the main target of damage in conditions characterized by IR, which is a risk factor for the progression of hepatic steatosis in NASH, with its inherent risk of progression to cirrhosis.

The aim of the study. To determine the features of metabolic disorders (glycemia, lipidemia) and their hormonal regulation (insulin, leptin, adiponectin), oxidative and nitrosative stress, endogenous intoxication, intensity of hepatocyte apoptosis (cytokeratin-18) in patients with nonalcoholic steatohepatitis depending on comorbid osteoarthritis and obesity, degree obesity.

Material and methods. 140 patients with NASH, OA, obesity or with their combination, were examined including 30 patients with OA and normal weight ($BMI = 21 - 25 \text{ kg} / \text{m}^2$), 80 patients with OA, NASH and obesity (BMI higher than $30 \text{ kg} / \text{m}^2$), 30 patients with NASH and obesity without OA ($BMI > 30 \text{ kg} / \text{m}^2$). The average age (63.1 ± 5.3) years. The control group consisted of 30 healthy individuals with normal body weight, including 12 men and 18 women.

Results. In patients with NASH, obesity and osteoarthritis a significant lipid distress syndrome, insulin resistance syndromes, oxidative and nitrosative stress, endotoxiosis, proteinase-inhibitory imbalance were found. Their intensity was higher than that in patients with NASH without OA. Increased content of cholesterol, LDL cholesterol, TG (1,8-2,1 times), atherogenic

index (3,4 times), leptin / BMI index (2,9 times), postprandial glycemia, glycosylated hemoglobin, HOMA -IR (2,9 times), malonic aldehyde and intermediates POL, OMP (2,1-4,1 times), nitrites / nitrates (1,6 times), ceruloplasmin (1,8 times), SMP (1,5 times), plasma proteolysis (1,9-2,1 times), decreased blood levels of HDL cholesterol (1,8 times), glutathione (1,9 times) ($p < 0,05$) in the blood correlates significantly with the increase in insulin content (2,8 times), leptin (5,0 times), cytokeratin-18 (7,1 times), decrease of blood adiponectin (1,5 times) ($p < 0,05$) and aggravated with increasing obesity ($p < 0,05$).

Conclusions. The regularities and clinical features of the course of non-alcoholic steatohepatitis and its progression have been established from the point of view of the established interrelationship of the degree of endotoxiosis, oxidative and nitrosative stress, excessive plasma proteolysis, hyper- and dyslipidemia, impaired glucose tolerance on the background of IR, with pronounced adipocytokine imbalance (hyperleptinemia, hypoadiponectinemia) and increased intensity of apoptosis (hyperproduction of cytokeratin-18).

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ULTRASOUND EXAMINATION OF THE SIGMOIDRECTAL SEGMENT IN CHILDREN OF EARLY AGE

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Introduction. The ultrasound examination in young children is necessary for timely diagnosis of defects in the development of the large intestine and its sigmoidorectal segment. As is generally known, an elaboration of specific echosymptoms of pathological conditions of hollow organs is based on the findings of normal ultrasound anatomy, whereas the basic trend of present day anatomical studies should be regarded a study of the age-related anatomical parameters [A.Shafik, S.Doss, S.Asaad [et al., 1999].

Objective of the study is to determine the features of the ultrasonographic structure of the constituent components of the sigmoidorectal segment in children of early age.

Materials and methods. We have carried out a screening-ultrasound examination of the sigmoidorectal segment in 16 full-term newborns and 16 infants of both sexes (equally) without pathology of the digestive organs within the framework of a routine examination.

Results. The results of an ultrasonographic examination obtained by us in children of early age corroborate the presence of O'Beirne-Pyrohov-Moutier's sphincter in the region of the sigmoidorectal junction. The latter is visualized with a vertical position of the probe. It has a form of a tubular hyperechogenic structure on a longitudinal section that is composed of the distal part of the sigmoid colon, the sigmoidorectal junction and the abdominal portion of the rectum. A colic haustrum is present in the lumen of the sigmoidorectal junction which is visualized at the level of the IInd – III^d sacral vertebrae. The sigmoidorectal junction during the phase of evacuation is narrower than the distal part of the sigmoid colon and the abdominal part of the rectum. The sphincter part of the sigmoidorectal segments is visualized in the form of a slightly echonegative semicircular structure. The parameters of the diameters of the distal portion of the sigmoid colon, the sigmoidorectal junction and the abdominal portion of the abdominal part of the rectum in girls are higher than in boys.

Conclusion. We regard that the results obtained by us in normal ultrasound anatomy of the transitional region between the sigmoid colon and rectum are worth taking into account, when elaborating the typical echographic signs of congenital and acquired pathology of the distal portion of the large intestine in neonates and infants.