

**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  
присвяченої 80-річчю БДМУ  
05, 07, 12 лютого 2024 року**

Конференція внесена до Реєстру заходів безперервного професійного розвитку,  
які проводитимуться у 2024 році № 3700679

**Чернівці – 2024**

УДК 001:378.12(477.85)

ББК 72:74.58

М 34

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.

ББК 72:74.58

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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ISBN 978-617-519-077-7

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**Kulachek V.T.**  
**HERBAL RENOPROTECTION IN PATIENTS WITH  
CHRONIC KIDNEY DISEASE**

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**Introduction.** Chronic kidney disease (CKD) is a term that encompasses all degrees of decreased kidney function, from damaged-at risk through mild, moderate, and severe chronic kidney failure. CKD is either kidney damage or a reduced glomerular filtration rate (GFR) of less than 60 mL/min/1.73 m<sup>2</sup> for at least 3 months. CKD is characterized by a progressive decrease in kidney function, albuminuria and an increase in albumin to creatinine ratio (ACR). Hypoazotemic therapy is an important part of the treatment of patients with chronic kidney disease. Nowadays the search for methods of decreasing the progression of CKD as an addition to the international recommendations is still actual.

**The aim of the study.** To study the possible hypoazotemic and renoprotective effect of the drug of *Lespedeza capitata* in patients at different stages in the evolution of chronic kidney disease (CKD).

**Material and methods.** The study involved 56 patients with CKD II-III stages. According to a survey of patients were divided into groups (I - patients with CKD with standard nephroprotective therapy (n=24), II - patients with CKD with standard nephroprotective therapy in combination with *Lespedeza capitata* 350 mg ) I (n=32). *Lespedeza capitata* was given in a dosage of 350 mg 3 times per day 3 months. Changes in GFR and daily albuminuria were studied 2 and 3 months in addition to conventional laboratory tests.

**Results.** When analyzing the results of the study, it was found that a significant decrease in albuminuria and urea blood level was noted in patient group II in comparison to the group of traditional treatment after 2 months of treatment (p<0.05). More expressed results were noticed in CKD III stage in comparison to CKD II between the equal stages of patient groups. A significant increase in GFR was noted after taking *Lespedeza* for three months, a significant increase in GFR was noted in both group I and group II. While using *Lespedeza capitata* in 5 patients, stage CKD was changed from III-d to II-nd. In group II the addition of *Lespedeza capitata* to the standard treatment helped significantly decrease the level of albuminuria and change the category of albuminuria from A3 to A2 and from A2 to A1 in 12 patients (p<0.05).

**Conclusion.** A combination of *Lespedeza capitata* drugs with standard nephroprotective therapy for CKD patients is recommended and improves kidney function and helps to reduce albuminuria. The recommended term of *Lespedeza capitata* prescription is 3 months or more.

**Kvasnytska O.B.**  
**STATE OF RENAL ACID EXCRETION FUNCTION IN PATIENTS WITH  
SUBCOMPENSATED CIRRHOSIS OF THE LIVER**

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**Introduction.** Liver diseases are always accompanied by changes in the acid-base balance with the development of predominantly metabolic acidosis, the intensity of which depends on the activity of the process. Disturbances in the acid-base balance in the body contribute to the intensification of disregulatory processes at the cellular and molecular level, which is an unfavorable prognostic factor. Considering the leading role in the correction of the acid-base balance of the kidneys, there is a certain interest in studying their acid-excreting function in chronic liver diseases, when metabolic changes in the body cause the progression of the disease due to the impact on certain links in the pathogenesis. Changes in acid-base balance affect the intensity of free radical and detoxification processes in the body, changes in microcirculation, and the activity of drugs.

**The aim of the study.** To examine changes in the acid-excretion function of the kidneys in patients with subcompensated cirrhosis of the liver.

**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 ( $63.1 \pm 5.3$ ) 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