

**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  
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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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severe clinical course, resistance to the means of standard therapy, which substantiates the importance of improving the treatment of this group of patients.

**The aim of the study.** Increase the effectiveness of treatment of patients with rosacea, considering the condition of the organs of the hepatobiliary system of patients and the clinical manifestations of dermatosis.

**Material and methods.** 57 patients with rosacea aged from 28 to 71 years, including 42 women and 15 men, were under observation. According to the clinical manifestations on the skin, 25 patients were diagnosed with the erythematous-telangiectatic form of rosacea, and the other 32 patients with the papulo-pustular form of dermatosis. The functional state of the organs of the hepatobiliary system was studied in patients using laboratory (biochemical, immunoenzymatic) research methods and ultrasound examination of the organs of the hepatobiliary system.

**Results.** As a result of the examination of patients with rosacea, diseases of the hepatobiliary system were found in a large part - 42 (73.7%) of them. These were chronic cholecystitis, hepatitis of non-viral etiology, etc., which were manifested by changes in the indicators of the biochemical blood test and ultrasound examination of the liver and gallbladder. Taking into account the clinical manifestations of rosacea on the skin (persistent erythema, numerous telangiectasias) and the detected changes in the organs of the hepatobiliary system, in order to increase the effectiveness of rosacea treatment, 29 patients (the main group) were additionally prescribed an angioprotective drug containing bioflavonoids - diosmin and hesperidin and a hepatoprotective drug containing silymarin. The remaining 28 patients (comparison group) received standard dermatosis therapy. According to clinical observations, patients with rosacea in the main group experienced a reduction in hyperemia and swelling and resolution of infiltrative manifestations of dermatosis at an earlier time. On an average it occurred 9 - 15 days earlier than in patients from the comparison group. One month after completion of the treatment, among patients with rosacea in the main group, a state of clinical recovery or a significant improvement was registered in 21 (72.4%) individuals, and only improvement - in 8 (27.6%) patients. Among patients in the comparison group, it was found in 12 (42.9%) and in 16 (57.1%) individuals respectively. According to Friedman's non-parametric variance analysis it has a significant difference ( $\chi^2 = 5.11$  for the critical value  $\chi^2 = 3.84$ ). Moreover, in the patients of the main group, a tendency towards normalization of the content of transaminases, alkaline phosphatase, cholesterol, lipid spectrum in the blood serum was registered.

**Conclusions.** The inclusion of an angioprotective drug containing bioflavonoids (diosmin, hesperidin) and a hepatoprotective drug containing silymarin in the comprehensive therapy of patients with rosacea contributes to the normalization of biochemical indicators of the functional state of the organs of the hepatobiliary system and reliably increases the effectiveness of the treatment of clinical manifestations of rosacea.

#### **Pudiak Kh.I.**

### **THE STATE OF THE VEGETATIVE PROVISION OF CARDIAC PERFORMANCE IN PATIENTS WITH COVID-19**

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**Introduction.** Epidemiological studies indicate a significant impact of COVID-19 on the cardiovascular system. One of the available and non-invasive methods of assessing cardiovascular risk is the study of heart rate variability (HRV), because the rhythm and force of heart contractions reacts very sensitively to any stressful effects. During the examination in the dynamics of patients with coronary heart disease, the consequences of COVID-19 can be detected, which are observed in changes in the autonomic regulation of the cardiovascular system.

**The aim of the study** is to outline current views on the impact of COVID-19 on heart rate variability based on the literature.

**Material and methods.** Several literary sources were analyzed over the past 4 years regarding the state of autonomic support of cardiac activity in patients with COVID-19.

**Results.** Kaliyaperumal et al. compared HRV indicators in patients with COVID-19 with those in healthy individuals. The authors found that HRV frequency parameters, namely LF and HF, were significantly reduced in case of SARS-CoV-2 infection. Additionally, they found that rMSSD was higher in the COVID-19 group compared to healthy individuals. On the contrary, in the study of domestic scientists led by V.Z. Netyazhenko, along with a decrease in total HRV, indicators that characterize mainly the activity of the parasympathetic division of the central nervous system (rMSSD, pNN50 and HF) in patients with COVID-19 were found to be lower than in controls, as well as in coronary heart disease in combination with COVID-19 against the background of a concomitant increase in the value of LF. A few study aimed to analyze autonomic function using HRV indices in the post-COVID period. An observational study by Indian scientists (Shah et al.) involved 92 people who had recently recovered from COVID-19. Violations of autonomous heart rhythm regulation were observed in 15.21% of cases. HRV (RMSSD) was significantly lower in post COVID-19 patients compared to healthy controls ( $13.9 \pm 11.8$  ms vs  $19.9 \pm 19.5$  ms;  $P = 0.01$ ). A significant inverse correlation was documented between HRV [RMSSD] and levels of inflammatory markers viz. CRP ( $r = -0.30$ ;  $P = 0.02$ ) and IL-6 ( $r = -0.36$ ;  $P = 0.005$ ). A small American observational study (Hasty et al.) showed substantial decreases in HRV preceded elevations in CRP in the ensuing 72 hours with a 90.9% positive predictive value. Early detection of increasing inflammation may prove vital in mitigating the deleterious effects of an abnormal inflammatory response, particularly in COVID-19 patients. This capability could have a major impact in triage and care of moderate to severe COVID-19 patients in major medical centers as well as field hospitals. This study demonstrates the potential value of short-segment, intermittent HRV analysis in COVID-19 patients. Another two studies (Tessa E. Adler et al. USA, Barizien et al., France) indicate the role of COVID-19 in the development of disorders of parasympathetic modulation of heart rate in post-COVID-19 patients. This shift in autonomic balance may indicate increased cardiovascular risk among survivors of severe COVID-19 infection. Chengfen Yin et al. from China suggested the decreases of HRV might help predict cardiac injury earlier than myocardial markers in COVID-19, thus its early identification might help improve patient prognosis. A retrospective cohort study by scientists from the Netherlands (Maartje B.A. Mol et al.) showed that higher HRV predicts greater chances of survival, especially in patients aged 70 years and older with COVID-19, independent of major prognostic factors.

**Conclusions.** The study of heart rate variability is a non-invasive method of quantitative assessment of the state of the sympathetic and parasympathetic divisions of the autonomic nervous system. A variable heart rate responsive to body needs is thought to confer a survival advantage, whereas a lower HRV is associated with a higher risk of cardiovascular events and mortality. This study demonstrates the potential value of HRV analysis in patients with COVID-19, given the existing evidence of autonomic nervous system dysfunction in these patients.

### **Semianiv I.O.**

## **EFFECTIVENESS OF TREATMENT OF COMORBID PATHOLOGY OF MULTIDRUG-RESISTANT TUBERCULOSIS AND DIABETES MELLITUS**

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**Introduction.** Diabetes is generally known to be the background for the development of tuberculosis and such comorbidity not only significantly complicates the specific process, but also is one of the main risk factors for tuberculosis recurrence.

**The aim** of the study is a comprehensive retrospective assessment of the prevalence, features, course of treatment of multidrug-resistant tuberculosis and diabetes mellitus.

**Materials and methods.** Our study is based on an analysis of statistical data obtained from a retrospective study of 762 case histories and cases of MDR-TB in the register of tuberculosis patients for 2015-2019.