

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ**



**МАТЕРІАЛИ**

**106-ї підсумкової науково-практичної конференції  
з міжнародною участю  
професорсько-викладацького колективу  
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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dimensions and EDS (0.881,  $p < 0.01$ ) and ESS (0.709,  $p < 0.05$ ). Regarding LV EF, there was an inverse relationship of mean force with LV size ( $-0.612$ ,  $p < 0.01$ ).

**Conclusions.** The established biochemical and functional changes in patients of both sexes require further research to confirm the relationship and study the features of the development of non-Q-myocardial infarction depending on gender influence with further consideration of the changes obtained for early prevention, prevention of destabilization and treatment tactics of patients.

**Bachuk-Ponych N.V.**

## **ADJUVANT THERAPY OF METESENSIVITY PATIENTS WITH ISCHEMIC HEART DISEASE**

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**Introduction.** The existing standards for the treatment of age-related vascular pathologies of the heart and brain do not provide the correction in weather-dependent patients, so there is a problem of finding drugs with multiorgan action, among which herbal medicines have undeniable advantages.

**The aim of the study.** To study the clinical efficacy of herbal preparation based on Ginkgo biloba extract and its effect on left ventricular ischemia in the complex treatment of patients with coronary heart disease (CHD) in the inpatient and outpatient stages. Herbal preparation consist of Ginkgo biloba leaf extract (EGB) 50 mg, hawthorn fruit extract 150 mg, periwinkle extract 60 mg, pueraria root extract 50 mg.

**Material and methods.** 98 patients with coronary heart disease, stable angina pectoris II-III functional class, aged 47-75 years were examined. Patients in the comparison group (23 people 23,47%) received standard treatment (angiotensin-converting enzyme inhibitor, beta-blocker, nitrate, if necessary - diuretic), patients in the control group - (75 people, 76,53%) - additional drug herbal preparation (2 capsules per day regardless of meals for 2-4 months). Daily ECG monitoring was performed using a portable complex "Solvaig" (Hungary). Examinations were performed in the first two days on a drug-free background and 14-16 days after the course of treatment. It was found that all patients had different degrees of meteorological dependence, 76 people (77,55%) had increased cardiac manifestations, which were accompanied by headache, sleep disturbance, irritability, arthralgia, which neurologists assessed as manifestations of dyscirculatory encephalopathy I-II degree. The seasonal manifestations of meteorological dependence in the late autumn and early spring periods were clinically more significant and longer than in the winter and summer periods.

**Results.** The use of herbal preparation based on Ginkgo biloba extract in the complex treatment of patients with coronary heart disease significantly contributed to accelerate the regression of clinical manifestations of coronary heart disease by 2 – 5 days. The results of Holter ECG monitoring show that the reduction of ischemia manifestations in patients with coronary heart disease was achieved by taking herbal preparation based on Ginkgo biloba extract- the number of ischemic episodes decreased from  $7.2 \pm 0.58$  to  $3.1 \pm 0.21$  ( $p < 0.05$ ), the duration of ischemic episodes decreased from  $46.7 \pm 4.08$  to  $21.2 \pm 2.01$  min ( $p < 0.05$ ), respectively, with a significant difference compared to similar parameters of the comparison group.

This effect of phytopreparation is demonstrated, probably, due to the content of flavonoids (quercetin, isoquercetin, rutin, triterpene compounds, ginkgolides A, B, C, J and bilobalides) - the main active substances of Ginkgo biloba and pueraria. They determine the antispasmodic, capillary-strengthening, anti-inflammatory and membrane-stabilizing properties of the drug. The vasoprotective properties of flavonoid glycosides of the extract are stem from the dilatation of arterioles and narrowing of veins, due to which the filling of the venous system is regulated.

After the conducted inpatient treatment, patients continued to take herbal preparation based on ginkgo biloba extract at the outpatient stage for two (persons under 55 years) - four (persons over

55 years) months in the early spring and late autumn period, and in the period between them, episodic 2-5 days according to calendar of meteorological days.

**Conclusions.** Domestic phytopreparation based on Ginkgo biloba extract - is an effective therapeutic and prophylactic drug, which can help with a correction of meteorological dependence in patients with age-related atherosclerotic lesions of the heart and brain, as well as has a positive effect on the dynamics of clinical symptoms, exhibits significant antiischemic and antihypertensive properties.

**Bobkovych K.O.**

## **STUDY OF TIME AND SPECTRAL INDICATORS OF HEART RHYTHM VARIABILITY IN PATIENTS WITH ARTERIAL HYPERTENSION COMBINED WITH TYPE II DIABETES MELLITUS**

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**Introduction.** The study of heart rate variability (HRV) in the framework of Holter monitoring of electrocardiography (ECG) is an important method for studying autonomic regulation, cardiovascular system condition and risk of death. It is particularly interesting to study HRV changes in patients with combined pathology of internal organs.

**The aim of the study.** This paper aims to evaluate the temporal and spectral parameters of HRV in patients with arterial hypertension and type 2 diabetes mellitus according to the data of daily Holter monitoring ECG.

**Material and methods.** We examined 26 patients (mean age  $58.4 \pm 3.7$  years) with arterial hypertension of stage II and grade 2. The comparison group consisted of 14 people without carbohydrate metabolism disorders. The main group included 12 patients with concomitant type II diabetes mellitus. As a control group, 15 practically healthy individuals were selected.

All patients underwent 24-hour Holter ECG monitoring with subsequent analysis of heart rate variability. HRV time indices were evaluated by the standard deviation of N-N intervals - SDNN, which reflects the total HRV as well as spectral indices: LF - low frequencies in the range of 0.04-0.15 Hz (reflects the sympathetic activity of the autonomic nervous system); HF - high frequencies in the range of 0.15-0.4 Hz (reflects parasympathetic activity); LF/HF - the ratio of LF to HF (reflects the balance of the sympathetic and parasympathetic systems).

**Results.** It was established that in the group of patients with isolated uncomplicated arterial hypertension, regardless of the presence of diabetes mellitus, only a tendency to decrease the time indices of heart rate variability was observed. In this category of patients, a general decrease in heart rate variability was noted - a decrease in the standard deviation (SDNN) to  $49.4 \pm 2.1$  ms compared with the control  $54.6 \pm 1.7$  ms ( $p > 0.05$ ), while in the presence of concomitant diabetes mellitus, these changes were significant  $44.7 \pm 1.9$  ( $p < 0.05$ ). At the same time, a correlation was established between the increase in the level of glycosylated hemoglobin and a decrease in SDNN. The analysis revealed significant changes in spectral characteristics (decrease in the high-frequency component of the spectrum (HF), increase in the LF/HF ratio) with a shift in the balance towards the sympathetic (low-frequency) component in both groups compared to the control. However, the LF component was slightly lower in the main group than in the comparison group, and, as a result, the LF/HF ratio was lower, which can probably be explained by impaired regulation of the sympathetic link or reduced sensitivity of the baroreflex.

**Conclusions.** In patients with arterial hypertension and type 2 diabetes mellitus, there is a decrease in both time and spectral heart rate variability, which indicates a decrease in the total activity of neurohumoral influences on the heart rate.