МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

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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The aim of the study. Define the frequency and patterns of valvular dysfunction and aortopathy associated with different types of bicuspid aortic valve. Most cases of severe aortic failure are associated directly or indirectly with congenital bicuspid aortic valve.

Materials and methods. We analyzed clinical, instrumental, laboratory, including echocardiography studies of 57 patients (35 men and 22 women) with diagnosed bicuspid aortic valve. 52 of 57 patients referred for transesophageal echocardiography (TEE) were analyzed. Aortic valve value less than 0.05 was considered statistically significant. Frequency of various bicuspid aortic valve phenotypes and their association with valvular dysfunction and aortopathy was evaluated.

Results. The analysis of the frequency of phenotypes detection showed the following addiction. A single suture bicuspid aortic valve, which is usually located between the left and right coronary cusps with hemodynamically prevailing stenosis, is more common, and all other types are defined as a mixed compound that is one of the risk factors for aortic stenosis and associated aortopathy and may lead to significant hemodynamic changes. Patients in the bicuspid aortic valve group were more likely to have periannular complications in compare with the tricuspid group. The prominent clinical manifestations brought on the progression of heart failure and the development of complications. The aortic pathology analysis is performed depending on the bicuspid aortic valve phenotype. The placement of the ventricles may be anterior-posterior or right-to-left. According to the functional state of the bicuspid aortic valve divided into complicated and uncomplicated. Patients of different phenotypes are characterized with indirect eccentric flow and uneven tension on the walls of the aorta that lead to vascular remodeling of the ascending aorta and formation of aneurysms or dissection. There was a significant difference in the frequency of aortic stenosis and failure of the aortic valve. The phenotype 3 showed a significantly higher incidence of aortic stenosis compared to phenotype 1, while the frequency of aortic failure in phenotype 1 was higher than among other phenotypes. The frequency of mass or vegetation in phenotype 1 was significantly lower compared to other phenotypes.

Conclusions. It is necessary to analyze symptoms of aortopathy, systemic signs of connective tissue involvement to identify syndromes of hereditary disorders of connective tissue associated with aortic aneurysm, diagnostic criteria for heart defects in the case of BAV diagnosis. The presence of BAV increases the risk of complications in the aortic valve. TEE is recommended for patients with BAV with the aim of early detection of initial conditions of hyalinosis, fibrosis and calcinosis of BAV, insufficiency and stenosis of aortic valve, aortic injury. The timeliness of conservative treatment prevents hemodynamic changes and increases the quality and prolongation of patients' lives until surgical correction.

Ilashchuk T.O.

INTEGRATIONAL POTENTIAL OF QUANTITATIVE ASSESSMENT OF STRUCTURAL CARDIAC CHANGES IN THE EVALUATION OF ANTIHYPERTENSIVE THERAPY

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Introduction. Arterial hypertension (AH) is a leading risk factor for cardiovascular diseases (CVDs) such as myocardial infarction and stroke. While effective control of blood pressure (BP) is the cornerstone of antihypertensive therapy, the assessment of the long-term benefits of therapy must go beyond mere BP measurements.Modern imaging techniques enable precise and reproducible quantification of these structural changes, providing a valuable tool for monitoring the effect of antihypertensive treatment. Left ventricular hypertrophy (LVH) in patients with AH is a key marker of cardiac remodeling and a predictor of adverse cardiovascular events.

The aim of the study. To analyze new studies about the impact of AHT on structural cardiac changes using quantitative imaging methods,to provide quantitative assessment of structural heart changes under the influence of antihypertensive therapy, particularly changes in left ventricular (LV) mass and geometry.

Material and methods. This work oriented on review of science data accessible in PubMed and Google Scholar databases, to form conclusive idea about present science consensus and possible future questions to research for creating better AH treatment through additional assessment of therapy effects.

Results. Different classes of antihypertensive drugs, including ACE inhibitors, angiotensin II receptor blockers, and beta-blockers, reduce LV mass, with the best results observed in combined therapies.Hypertension increases the amount of type I collagen, reduces type III collagen, and causes collagen fibril aggregation. Antihypertensive therapy promotes the regression of these changes. Reduction in LV mass improves systolic and diastolic function, reduces the risk of ventricular arrhythmias, and enhances coronary reserve.

Several studies have demonstrated the ability of AHT to induce regression of LVH, particularly with therapies targeting the RAAS. The extent of LVH reversal correlates with reductions in cardiovascular events, highlighting the importance of incorporating structural cardiac assessments into the evaluation of treatment efficacy. Beyond LVH regression, changes in cardiac geometry and myocardial fibrosis are important predictors of long-term outcomes. The ability to reverse adverse remodeling may offer a more precise marker of treatment success than BP reduction alone.

Despite the clear benefits of quantitative assessment, routine integration into clinical practice faces several barriers, including cost, accessibility, and the need for specialized training in imaging interpretation.

Conclusions. Quantitative assessment of structural heart changes allows the detection of minimal changes that are not visible in qualitative analysis, making it a promising direction for improving the prediction and treatment of patients with AH. Further research is needed to determine the optimal frequency of imaging assessments, identify thresholds for clinical decision-making, and evaluate the cost-effectiveness of routine structural assessment.

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STATISTICAL DIFFERENCES OF CHRONIC PANCREATITIS DEPENDING ON THE ETIOLOGICAL FACTOR AND AGE.

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Introduction. Chronic pancreatitis (CP) can be caused by various etiological factors, the verification of which helps in targeted, objective treatment and prognosis of this pathology.

The aim of the study. Determination of statistical differences in CP depending on the etiological factor and age.

Material and methods. data from the out-patient cards of 51 patients who were under supervision in the communal city polyclinic No. 1 with diagnosis of CP, dividing them by etiological factor: alcoholic, biliary and without established genesis.

Results. It turned out that in the general cohort of patients with CP diagnosis, there were the most people with CP of alcoholic genesis - 22 patients (43.14%), a moderate number - with CP of biliary genesis - 18 (35.29%) and a small number ones with CP of unknown origin genesis - 11 patients (21.57%). In terms of age, the patients were represented as follows: in the category of 18-39 years - 6 (11.8%) patients, 40-59 years - 18 (35.3%), 60 and older - 27 (52.9%). The obtained data look completely logical and understandable - the number of patients with CP increases with age.

At the next stage, in our research, we have decided to determine the age distribution of our patients, depending on the etiological factor. The statistical analysis revealed the following: among patients with CP of biliary genesis, there were 3 (16.67%) patients in the age group of 18-39, in the group of 40-59 - 5 (27.78%) patients, in the group of 60 and older - 10 (55.55%) ones. As for patients with CP of alcoholic genesis, the age distribution was as follows: 18-39 – 3 (13.64%) patients, 40-59 – 11 (50%) patients, 60 and older – 8 (36.36%) patients. In the group of patients