

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



МАТЕРІАЛИ

**104-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
06, 08, 13 лютого 2023 року**

Конференція внесена до Реєстру заходів безперервного професійного розвитку,
які проводитимуться у 2023 році №5500074

Чернівці – 2023

morning after meals for 6 months. The dynamics of glycosylated hemoglobin, body mass index, and arterial pressure were evaluated before and after treatment in both groups.

Results. It was investigated that the additional administration of metformin contributed to a significant reduction of glycosylated hemoglobin "diabetes mirror" from 6.75 ± 0.41 to 5.7 ± 0.31 ($p < 0.05$). In the main group, where patients followed the dietary recommendations only, the decrease was only a trend. Control of the body mass index during the course of the study showed an unreliable decrease in the indicator in the main group, while in the control group – its increase was recorded. Analysis of blood pressure dynamics showed a significant decrease in both systolic and diastolic pressure in both groups. In the main group, the target levels were reached, but it was not possible to establish a reliable intergroup difference.

Conclusions. Therefore, the use of the drug metformin in patients with ischemic heart disease, arterial hypertension and metabolic syndrome improves glucose tolerance, contributes to the normalization of body weight and optimizes hypotensive therapy in patients with metabolic syndrome.

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PREGNANCY-ASSOCIATED PROTEIN-A AND C-REACTIVE PROTEIN IN PATIENTS WITH MANIFESTATIONS OF SUBCLINICAL ATHEROSCLEROSIS

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Introduction. The proposed in 2018 definition of clinical conditions in cardiology, which can serve as a manifestation of subclinical atherosclerosis, including asymptomatic patients at risk for coronary heart disease, atypical course, changing the development of acute coronary syndrome, long preclinical period against the background of confirmed coronary atherosclerosis cause a changes in diagnostic and treatment strategy according to the latest European guidelines.

The aim of the study. To investigate the influence associated with pregnancy plasma protein -A (PAPP-A) and C-reactive protein (CRP) in the formation of subclinical atherosclerosis and in estimation of the change rate of intima-media (CIM), total ejection fraction and volume end-systole, total cholesterol, exercise tolerance and the comparison group, the initial level of the biomarker and the background of the treatment ($n=23$) for statin use and metabolic therapy (trimetazidine and magne -B6).

Material and methods. Examination of 67 patients with the division into two groups with clinical manifestations of subclinical atherosclerosis and atypical clinic in terms of differential diagnosis in the distribution of vegetative- vascular dystonia coronary syndrome X, stable angina stress I-II functional class with an estimate levels of biomarkers (PAPP-A and CRP) to conduct clinical and functional review of all patients (methods of ECG, echocardiography, treadmill test, blood tests, including ELISA).

Results. CIM indication decreased during treatment and observation in the total group ($n = 67$) ($p < 0,05$) and the distribution of $PAPP-A \geq 4,12$ mIU/L ($p < 0,002$), and observations determined initial increase in CIM over the distribution $PAPP-A \geq 4,12$ mIU/L ($p < 0,001$), which were stored during treatment in the total group ($n = 67$) over the distribution of medium-sized CMMs for PAPP-A were in the treatment $\geq 4,12$ mIU/L ($p < 0,01$). In the group before /after treatment ($n = 23$) there was a decrease of-CIM during treatment in the total group ($p < 0,02$), with a tendency to decrease CIM in the group where enlarged $PAPP-A \geq 4,48$ mIU/L ($p > 0,05$) and reduced $PAPP-A < 4,48$ mIU/L ($p > 0,05$), and subclinical atherosclerosis ($n = 46$) registered a decrease CIM in the treatment group reduced PAPP-A ($< 4,54$ mIU/L, $p < 0,01$), but not in the group of increased PAPP-A ($\geq 4,5$ mIU/l, $p > 0,1$). The study found a significant decrease in the sum of CIM based content CRP in the total group ($n=67$) during treatment ($p < 0,02$) and at distribution of $CRP \geq 12,47$ mg/l a CIM reduction was recorded ($p < 0,005$). The initial increase in CIM, which further decreases significantly in the treatment group ($n=23$) for the distribution of $CRP < 17, 11 \geq$ mg/dL ($p < 0,02$), also significantly reduce CIM consistent for CRP in the treatment group $PSA \geq 12.47$ mg/L ($p < 0,005$), as well as in atherosclerosis group for CRP ($< 16,55 \geq$ mg/l) with decreasing rate CIM ($p < 0,05$).

Conclusions. CIM index decreased during treatment and observation in the total group (n=67) ($p < 0,05$) and the distribution of PAPP -A $\geq 4,12$ mIU/ L ($p < 0,002$), for a specified output increase over CIM distribution PAPP -A $\geq 4,12$ mIU/L ($p < 0,001$), which were stored during treatment in the total group (n=67) in the distribution of average CMM for PAPP -A in the treatment of $\geq 4,12$ mIU/L ($p < 0,01$). The initial increase in CIM, which further decreases significantly in the treatment group (n=23) over the distribution of CRP $< 17,11 \geq$ mg/l ($p < 0,02$), also significantly reduce CIM consistent for CRP in the treatment group PSA ≥ 12.47 mg/l ($p < 0,005$), as well as in atherosclerosis group for CRP ($< 16,55 \geq$ mg/l) with decreasing rate CIM ($p < 0,05$).

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THE PECULIARITIES OF INTERPRETATION OF D-DIMER TEST IN CLINICAL PRACTICE

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Introduction. D-dimer serves as a multifaceted biomarker of concomitant activation of coagulation and fibrinolysis, which is routinely used for ruling out pulmonary embolism (PE) and/or deep vein thrombosis (DVT) combined with a clinical pretest probability assessment (Thachil J., 2017; Lippi G et al., 2014; Jiaqi Fang et al., 2022). Other indications for D-dimer testing include assessing the risk of recurrent thrombosis, guiding anticoagulant therapy and monitoring disseminated intravascular coagulation (Adam SS et al., 2009; Tripodi A, 2011). D-dimeris elevated in most patients with thrombosis but also may be false-positive or false negative.

The aim of the study. Our aim was to analyze, according to the modern literature data, the peculiarities of interpretation of D-dimer test results in clinical practice.

Material and methods. The author conducted a short systematic literature search for relevant English-language publications published between 2003 and 2022 in MedLine, PubMed, and Google Scholar.

Results. Modern D-dimer assays have reported sensitivities ranging from 95% to 96%, with low specificities ranging from 45% to 61% and a negative predictive value (NPV) range from 97% to 99%. (Joshua FGilens et al., 2022). Increased D-dimer levels may also be observed in many conditions, such as infection, pregnancy, trauma, advanced age, malignancy, liver disease, heart diseases, immobility, as well as in hematomas or interstitial hemorrhages, after recent surgery, in central venous catheterization (Linkins, L.A., 2017; Jeffrey I. Weitz et al., 2017; Wendy L Wahl, 2003; Wanli Liu et al., 2021). Besides the thrombotic disorders, cancers, and infection, D-dimer is increased in autoimmune disease and joint diseases (So AK 2003, Weitz JI, 2017; Adam SS et al., 2009). Vascular injury and vascular thrombosis are found to be involved in inflammatory bowel diseases, resulting in an increase in D-dimer (Alkim H, 2011). Moreover, the D-dimer is elevated in ankylosing spondyloarthritis and is associated with the disease activity (Li Y et al., 2020). Jiaqi Fang et al., in 2022 reported that the elevated D-dimer is related to peripheral joint involvement and gut inflammation. So, authors suggest that serum D-dimer may be a potential biomarker for identifying patients with spondyloarthritis with suspected gut inflammation. Mohamed H., 2016 revealed that the D-dimer levels were statistically significantly higher in hyperthyroid patients.

D-dimer has been shown to increase with age, which can cause a lower specificity (i.e. more false positive tests) in older patients. Specificity can range from 49% – 67% in patients ≤ 50 years of age, but in older patients (i.e. ≥ 80 years of age) the specificity is quoted as 0% – 18% (Salim Rezaie, 2014). Rising levels of D-dimer with age can be explained in part by the high prevalence of pro-inflammatory conditions and the increasing burden of lipid abnormalities, anemia and obesity. These factors compromise the specificity of D-dimer levels as a diagnostic aid to thrombosis in older individuals. Tita-Nwa F et al. in 2010, using polychotomous logistic regression models, found that age, cholesterol, triglycerides, creatinine, erythrocyte sedimentation rate, hemoglobin and body mass index were independently associated with D-dimer level. The D-dimer test is positive in the diagnosis of aortic dissection (Mir MA, 2010). In 2022 Lan Cheng et al. investigated the