#### МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ «БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



### МАТЕРІАЛИ

101 - i

підсумкової наукової конференції професорсько-викладацького персоналу Вищого державного навчального закладу України «БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ» 10, 12, 17 лютого 2020 року

УДК 001:378.12(477.85) ББК 72:74.58 М 34

Матеріали 101 — ї підсумкової наукової конференції професорськовикладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет» (м. Чернівці, 10, 12, 17 лютого 2020 р.) — Чернівці: Медуніверситет, 2020. — 488 с. іл.

ББК 72:74.58

Загальна редакція: професор Бойчук Т.М., професор Іващук О.І., доцент Безрук В.В.

Наукові рецензенти: професор Братенко М.К. професор Булик Р.€. професор Гринчук Ф.В. професор Давиденко І.С. професор Дейнека С.Є. професор Денисенко О.І. професор Заморський I.I. професор Колоскова О.К. професор Коновчук В.М. професор Пенішкевич Я.І. професор Сидорчук Л.П. професор Слободян О.М. професор Ткачук С.С. професор Тодоріко Л.Д. професор Юзько О.М. професор Годованець О.І.

ISBN 978-966-697-843-4

<sup>©</sup> Буковинський державний медичний університет, 2020



the contrary, inflammatory infiltration of the epithelium and submucosal layer of the esophagus prevailed over the hyperregenerative changes. The esophagopathic index at alkaline reflux was EPI=2.29±0.08 and at acidic reflux significantly lower EPI=1.94±0.19 (p<0.05). In patients with GERD with hypothyroidism with alkaline reflux (5%), cylindrical gastric and specialized intestinal metaplasia were observed mainly against the background of thickened, with spongiosis, stratified squamous epithelium. In cases with Barrett's esophagus, patients with GERD with acid reflux (30%) with gastric and specialized intestinal metaplasia of stratified squamous epithelium showed subepithelial incendiary polymorphic cell infiltration; stratified squamous epithelium in these cases was also thickened, with spongiosis.

Thus, the combination of GERD and hypothyroidism leads to changes in the course of the disease, the clinical picture, reduces efficiency of treatment and worsens the prognosis. The occurrence of GERD in comorbidity with hypothyroidism complicates the course of the disease and leads to the frequent development of alkaline reflux.

## Rusnak I.T. LIFESTYLE CHANGES INCLUDING PHYSICAL ACTIVITY CONTRIBUTE TO THE CONTROL OF CARDIOVASCULAR RISK FACTORS

Department of Internal Medicine, Physical Rehabilitation and Sports Medicine Higher State Educational Establishment of Ukraine «Bukovinian State Medical University»

There is a decrease in physical activity worldwide. Every third adult is not physically active. However, the increase in physical activity in terms of a healthy environment benefits the health of people of all age groups. The WHO provides recommendations for optimal activity levels, but even minor physical activity is better than its lack. People who suffer from lack of exercise should start with a low level of physical activity and gradually increase duration, frequency and intensity of training. Among the factors that form the basis promoting many diseases, including cardiovascular ones, there is lack of physical activity. Approximately 3.2 million annual deaths are related to physical inactivity.

Physical activity is to be understood as any body movement involving skeletal muscles with energy release. Physical inactivity (lack of physical activity) is an independent risk factor for occurring chronic diseases. Healthy people are recommended to maintain appropriate levels of physical activity throughout their life. At least 30 minutes of moderate intensity physical activity 5 times a week reduces the risk of a number of non-communicable diseases among adults. Stronger physical activity brings more health benefits and may be required to control the body weight.

Physical activity helps preventing heart attacks and cardiovascular diseases. The results of all available researches demonstrate that regular exercises in moderate amount are perhaps the most effective preventive measure of heart diseases and their complications.

In case of coronary artery diseases regular exercises help the body to form more auxiliary arteries through which the blood can flow around the body and bypass occluded blood vessels.

Aerobic exercises contribute to decrease of blood pressure, the level of triglycerides and low-density cholesterol, at the same time increasing the level of high-density cholesterol and preventing blood clotting.

The results of a large-scale investigation during 8 years of more than 84 thousand of nurses are significant. Those who regularly did a complex of physical exercises presented the risk of heart attack or stroke 54% less compared to those women who had sedentary lifestyle.

Modification of lifestyle is a priority in the treatment of hypertensive patients according to the recommendations of the European Society of Hypertension (ESH) and the European Society of Cardiology (ESC). Clinical studies show that to reduce blood pressure changes in lifestyle can be equivalent to the efficacy of the drug alone and able to safely and effectively prevent the development of hypertension or delay the use of drug therapy; to prevent, if necessary, the use of it by patients with stage 1 hypertension. In addition to effects blood pressure reduction, lifestyle changes contribute to the control of other factors of cardiovascular risk and clinical conditions. In



the recommended approach to lifestyle changes regular exercise are envisaged, for example, at least 30 minutes of moderate physical activity within 5 - 7 days a week. Moderate aerobic exercises are walking, jogging, cycling, swimming.

#### Shorikov E.I.

# THE LEVEL OF SPECAM-1 AND VON WILLEBRAND FACTOR DURING THE SUPRAVENTRICULAR TACHYCARDIA EPISODES IN PATIENTS WITH ARTERIAL HYPERTENSION

Department of Internal Medicine, Clinical Pharmacology and Occupational Diseases
Higher state educational establishment of Ukraine
"Bukovinian State Medical University"

Background: In the consensus document on the influence of hypertension on the development of cardiac arrhythmias was underlined that it is the most principal and common risk factor responsible for death and disability of non-communicable diseases worldwide (Lip GYH, Coca A, Marin F, et al., 2017). On the other hand, the coexistence of any kind of arrhythmia and high level of the blood pressure may increase the risk of the thrombotic complication. Thus, thrombus formation is accompanied by the changes of the levels of biomarkers of vascular affection, such as the superfamily of vascular endothelium growth factors (VEGF), cell adhesion molecules, von Willebrand factor (vWF) etc.

We aimed to define the character of interrelationship between the episodes of supraventricular arrhythmias (SVT) and paroxysmal atrial fibrillation (PAF) and the changes of level and activity of synthetic biomarkers of endothelial function von Willebrand factor (vWF) and soluble platelet endothelium cell adhesion molecule-1 (SPECAM-1) in arterial hypertensive (AH) patients with high risk.

We have examined 594 patients. The period of observation lasted 5 years (2011-2015). All patients have the previous duration of AH no longer than 5 years. We have excluded from the investigation people with the use of more than three antihypertensive drugs. Episodes of SVT and PAF were fixed in protocol. During the arrhythmical episodes, the initial levels of SPECAM-1 and vWF were measured.

In our observation, we have set the reliable increase of the probability of PAF (9,93% [7,98 – 12,19]) than the SVT (3,87% [2,47 - 575]) development, OR=2,74 [1.64 – 4,72] in patients with clinical course of arterial hypertension. There was not found the reliable changes in the levels of SPECAM-1 in the subgroups of SVT, PAF and AH without arrhythmical episode. However, multivariate parametric analysis of variance showed statistically significant differences in initial levels of vWF depending on the presence of arrhythmia. This parameter was significally higher in the group of AH and PAF than in the group of AH and SVT. In both groups with arrhythmia, the initial level of vWF was significally higher than in the group with "pure" AH (table).

Thus, study provides evidence that episode both SVT and PAF on the basis of AH are followed by the growth of coagulation activity which may affect the changes of functional state of endothelium and forward to the severity of vessel wall damage which contributes in acute cardiovascular complications.

Table

Initial levels of vWF in different arrhythmical episodes during the clinical course of arterial hypertension

of afternal hypertension		
AH, AH with episode SVT	(108.00 vs 116.70)	< 0.05
AH, AH with episode PAF	(108.00 vs 130.60)	< 0.01
AH with episode SVT, AH with episode PAF	(116.70 vs 130.60)	< 0.01