

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



## **МАТЕРІАЛИ**

**101 – ї**

**підсумкової наукової конференції**

**професорсько-викладацького персоналу**

**Вищого державного навчального закладу України**

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У збірнику представлені матеріали 101 – ї підсумкової наукової конференції професорсько-викладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет» (м.Чернівці, 10, 12, 17 лютого 2020 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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higher in patients of the main and comparison groups by 55.8% ( $p=0,01$ ) and 56,5% ( $p=0,04$ ) as compared to the specified figures in healthy people. Significant increase in the total LDH activity was observed in patients with hypothyroidism and CC, which at 38,4% ( $p<0,0001$ ) and 40,2% ( $p<0,0001$ ) prevailed mentioned values in patients of the comparison group and healthy individuals. The AP activity was higher by 14,7% ( $p=0,04$ ) in CC patients compared to healthy people. In patients with hypothyroidism and CC, AP was the highest, its activity by 31,7% ( $p=0,0002$ ) prevailed control indicators and by 14,8% ( $p=0,04$ ) activity of this enzyme in the patients of comparison group. In patients of both examined groups GGT activity at 63,5% ( $p=0,0007$ ) and 66,5% ( $p=0,002$ ) prevailed control values. In patients with CC and hypothyroidism increased VEGF plasma level was observed, which at 2,5 times ( $p=0,0005$ ) prevailed its concentration in healthy individuals. Also VEGF concentration in patients of the main group was significantly higher at 53,2% ( $p=0,04$ ) as compared to patients of comparison group, that indicates the increased severity of the endothelium dysfunction in patients with hypothyroidism and CC and point on the particular role of the thyroid hormones in disbalance in this injury

Thus, in patients with chronic cholecystitis and hypothyroidism increased lactate dehydrogenase and alkaline phosphatase activity were observed, accompanied by the manifestation of cholestasis. Increased vascular endothelium growth factor plasma level and endotheliocytes number was detected in this patients, attested the accelerated severity of endothelium dysfunction.

**Reva T.V.**

### **MORPHOLOGY OF THE ESOPHAGEAL MUCOSA IN PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE ON THE BACKGROUND OF HYPOTHYROIDISM**

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The current paradigm of gastroesophageal reflux disease (GERD) diagnosis hinges on the identification of oesophageal mucosal lesions or troublesome symptoms caused by gastro-oesophageal reflux. The primary determinant of mucosal injury is excessive oesophageal acid exposure attributable to anatomical or physiological defects of the oesophagogastric junction and oesophageal peristalsis. GERD symptoms, however, have multiple potential determinants including the number of reflux episodes, the proximal extent to which the refluxate migrates, the acidity of the refluxate, oesophageal hypersensitivity and cognitive hypervigilance. Consequently, depending on the clinical context, the defining features of GERD can be pathology, physiology or symptomatology. The morphology of GERD depends on the duration of contact between the esophageal mucosa and refluxed stomach contents. Consequently, the amount of refluxed material, how frequently reflux occurs, and how quickly refluxed material is cleared are all variables. Endocrine disorders are common, and the effects of endocrine disorders present with a wide range of clinical manifestations. Digestive symptoms or signs may also reveal signs of thyroid disease and, when ignored or underestimated, diagnosis may be delayed and serious consequences may occur. Patients with adult gland thyroid deficiency may cause gastrointestinal manifestations, such as GERD.

The objectives of the study was to determine the main morphological features of the course of gastroesophageal reflux disease in the conditions of comorbidity with hypothyroidism.

The main group consisted of 100 patients with GERD in comorbidity with hypothyroidism. The average age of patients was 49.9 years. There were 18 men (18%), 82 women (82%). The control group consisted of 30 patients with GERD (with acid reflux). The comprehensive study included clinical inspection, laboratory and instrumental research. Nature of the histological changes of the esophageal mucosa was assessed using a rating scale of morphological changes of the esophagus and the esophagopatic index.

In the pathomorphological picture GERD with alkaline reflux marked predominance of hyperregenerative changes over inflammatory of the esophageal mucosa, but when acid reflux, on



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  $EPI=2.29\pm 0.08$  and at acidic reflux significantly lower  $EPI=1.94\pm 0.19$  ( $p<0.05$ ). 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**

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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 I hypertension. In addition to effects blood pressure reduction, lifestyle changes contribute to the control of other factors of cardiovascular risk and clinical conditions. In