per day for 5 days was additionally prescribed, then 2 days break. Patients of group III instead of digoxin took homviocorin-N 15 drops three times a day. All the patients were examined for 6 months.

We determined that in group III in comparison with group I the period was increased when patients did not need re-hospitalization. This was manifested by a more stable regression of clinical manifestations: shortness of breath, palpitations, oedema. The heart rate decreased significantly. In some patients of group II digoxin administration required adjustment in the direction of dose reduction first to 0.125 mg and then 0.0625 mg, and drug withdrawal in 23% of patients in the first month of follow-up and in 35% - in the second due to the development side effects (bradycardia, depression of the ST segment). Atrial and ventricular arrhythmias occurred in 30% of patients. Additional administration of hoviokorin-N did not require correction in the outpatient phase, as no side effects were reported. This can be explained by lower doses of glycosidic factors in the herbal medicine and its mild diuretic effect, which reduced the need of patients for loop diuretics in comparison with group II. These effects led to reducing the risk of hypokalemia and, consequently, arrhythmia. The assessment of echocardiography in group III revealed a slight increase in the emission fraction, but the changes were only tendentious.

Therefore, the drug homviocorin-N should be prescribed to patients with CHF and AF at the outpatient phase, because with long-term use it improves the well-being of patients, reduces clinical manifestations of the disease, does not cause unwanted side effects and simplifies physician control over therapy.

Gingulyak O.M.

FORMATION OF CHESS ON THE BASIS OF DEVELOPMENT OF ENDOTHELIAL DYSFUNCTION IN PERSONS WITH SUBCLINICAL ATHEROSCLEROSIS

Department of Internal Medicine, Physical Rehabilitation and Sports Medicine
Bukovinian State Medical University

Today, the main reason for the development of coronary heart disease (CHD) - atherosclerosis - is regarded as one of the forms of chronic inflammation, which is based on the disturbance of cholesterol metabolism. CHD occurs in men in the absence of explicit risk factors, usually at the age of 55 years. Due to not always known causes of its occurrence it is possible and at an earlier age. Recent studies have undeniably proved that inflammation is one of the main pathogenetic mechanisms of atherosclerosis, starting with the first manifestations of the vessel wall damage and ending with the rupture of the atherosclerotic plaque and the onset of the acute coronary syndrome. Therefore, the study of atherogenesis will make it possible to detect patients at the subclinical stage of atherosclerosis by studying the intima-media complex, and the application of various therapies (metabolic, hypolipidemic) objectivizes the therapeutic approach that is more effective in the treatment and prevention of early atherosclerosis, which will enable to prevent the development of severe vascular diseases of the cardiovascular system and central nervous system.

The main purpose of the work is to determine the early signs of endothelial dysfunction and increase the thickness of the intima-media complex (TCIM) of the carotid arteries and to objectify the level of inflammation markers in subjects with subclinical atherosclerosis, the effect of treatment.

The following research methods were used: a detailed collection of complaints and anamnesis, a thorough objective examination, laboratory, biochemical, and instrumental research methods. In 2003, experts of the European Society of Hypertension and the European Society of Cardiologists determined the optimal values of TCIM <0.9 mm; an increase is considered to be TCIM of 0.9 mm to 1.3 mm, and criterion of atherosclerotic plaque - TCIM ≥ 1.3 mm.

A total of 45 young men with the phenomena of subclinical atherosclerosis were examined, at the beginning of treatment and after 3 months of treatment. The colored duplex scan (CDS) was examined by the internal right and left carotid artery (ICA) TCIM. Before the treatment with hypolipidemic drugs TCIM was - <0.9 mm, which was diagnosed for right asthma in 26.7% of cases among the examined patients, 0.9-1.3 mm - in 33.3% of the subjects,> 1.3 mm in 40 % of

patients. For the assessment of the left ICA, the data were as follows: TCIM - <0.9 mm at 26.7%, 0.9-1.3 mm -4.6.7%,> 1.3 mm in 26.7% of the subjects. After the treatment, which lasted for 3 months, the following parameters were obtained: TCIM - <0,9 mm on right VAA in 43,5%, 0,9-1,3 mm in 30,4%,> 1,3 mm in 26,1 . The left CCA study was 56.5%, 26.1% and 17.3% respectively, indicating a positive effect of treatment and indicating an increase in the number of patients with normal CI (<0.9 mm) and a significant decrease in CIM thickening.

Therefore, the use of anti-atherosclerotic therapy at the stage of subclinical atherosclerosis, which is diagnosed with a color duplex scan with the evaluation of TCIM, makes it possible to reduce the level of coronary and cerebral pathology, and the use of hypolipidemic therapy significantly reduces the signs of atherosclerosis.

Glubochenko O.V.

DRUG–INDUCED SCLERODERMA-LIKE SYNDROMES

Department of Propedeutics of Internal Medicine
Bukovinian State Medical University

Systemic sclerosis (SSc) or scleroderma is a group of autoimmune connective tissue disorders which features include fibrosis of the skin, obliterative vasculopathy, changes in muscles, and internal organs. To differentiate SSc with scleroderma-like syndromes provoked by drugs is important in clinical practice.

Our aim was to analyse, according to the modern literature data, the peculiarities, pathogenic mechanism of development and occurrence of drug-induced variants of scleroderma.

A variety of medications have been associated with the development of scleroderma-like conditions. Drugs can also induce sclerotic skin changes along with Raynaud phenomenon, scleroderma-like conditions, including morphea, linear scleroderma and diffuse scleroderma with pulmonary fibrosis and other internal organ involvement.Sometimes local scleroderma or morphea may occur at the site of the injected drugs.Causative medications include a wide spectrum of chemotherapeutic agents, analgesics, neurological drugs, appetite suppressants, vitamins and many other agents. Localized scleroderma-like changes can be provoked by antimitotic drugs (Bleomycin, Taxanes, Pemetrexed, Gemcitabine, Doxorubicin), Ergot alkaloids (Ergotamine, Methysergide, Opioids, Pentazocine, Methadone). Morphea like-syndrome is caused by Vitamin K1, Beta-blockers (Metoprolol, Atenolol, Bisoprolol), Anticonvulsants (Ethosuximide, Penicillamine). Diffuse scleroderma-like syndrome may occur due to the use of: drug of abuse (Cocaine), food supplement (L-tryptophan), cytokines (Interferon α, Interleukin-2), checkpoint inhibitors (Pembrolizumab, Nivolumab), miscellaneous (Hydroxyurea, Letrozole, Balicatib). Antineoplastic drugs (Bleomycin), disease-modifying antirheumatic drugs (Methotrexate, Leflunomide, TNF inhibitors) and Amiodarone can cause pulmonary fibrosis, which against the background of connective tissue disorders such as rheumatoid arthritis often becomes difficult to ascertain the causality (Sahoo RR et al., 2020). Takumi Toya et al., 2019 report a case of severe Dasatinib-induced pulmonary arterial hypertension complicated with scleroderma that was successfully treated with Dasatinib discontinuation and using of pulmonary vasodilators.

The real mechanisms are still unknown since the reported cases of drug induced fibrosis are unclear and few. However, one commonly suggested hypothesis concerns ischemia. Since drugs like ergot derivatives cause vasoconstriction and β-blockers lead to decreased cardiac output, ischemia was initially postulated to lead to fibrosis (Ahmed Sakir et al.,2019). Other mechanisms such as endothelial mesenchymal transition, inflammation activation, M2 macrophage polarization, and NETosis may also play a certain role similar to systemic sclerosis. This finally culminates in the activation of fibroblasts and deposition of extracellular matrix including collagen (Gupta L et al., 2017). Chronic injection of analgesic Pentazocine can leads to disorders in microcirculation and ischemia. Similarly, cocaine and appetite suppressants have sympathomimetic activity and cause contraction of blood vessels. Cocaine may also cause diffuse scleroderma-like alterations in the skin. Appetite suppressant drugs are responsible for Raynaud's symptom, hand edema, sclerodactyly and dysphagia.