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## CHANGES IN VASCULAR ENDOTHELIUM ON THE BACKGROUND OF CORONARY HEART DISEASE AND ATHEROSCLEROSIS

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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 violation of cholesterol metabolism. CHD occurs in men in the absence of explicit risk factors, usually in the age of 55 years of age due to not always known causes of its occurrence 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 damage to the vessel wall and ending with the rupture of the atherosclerotic plaque and the onset of acute coronary syndrome. Therefore, the study of atherogenesis by studying the intima-media complex will make it possible to detect patients at the subclinical stage of atherosclerosis, 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 their 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, instrumental research methods. Experts of the European Society for hypertension and the European Society of Cardiologists in 2003 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 of the male sex with the phenomena of subclinical atherosclerosis were examined, at the beginning of treatment and after treatment after 3 months. 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: TKIM - <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.

The use of anti-atherosclerotic therapy at the stage of subclinical atherosclerosis, which is diagnosed with 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. SPINAL GOUT: CLINICAL ASPECTS

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Gout is the most common inflammatory arthritis that is caused by the deposition of monosodium urate crystals in synovial fluid, periarticular tissue, subcutaneous tissue, and the urinary tract. Recent reports of the prevalence and incidence of gout vary widely according to the population studied and the methods employed, but they range from a prevalence of less than 1% to 6.8% and an incidence of 0.58–2.89 per 1,000 person-years (Mats Dehlin,et al. 2020).

Our aim was to analyze, according to the modern literature data, the clinical peculiarities and spreading of the unusual presentations of gouty tophi variants, particularly the spinal gout.

The monosodium urate crystals are accumulated in the synovial fluid and form deposits on the cartilage and, potentially in every tissue of the body, including the axial skeleton, where the facet joints, spinous processes, intervertebral disks, or sacroiliac joints may have urate crystals deposits (Forbess LJ et al 2012). Spinal tophi may also occur and are rarely reported, resulting in various clinical manifestations such as back pain, spinal cord compression, radiculopathy, and even mimicking epidural abscess and spondylodiscitis (Wan SA, 2019). Although gout is prevalent worldwide, the cases of spinal gout are less frequently reported. They are presented variably with acute, subacute, or chronic symptoms. (Koro, L,et al., 2021). This author reported a case of a 35year-old male with thoracic spinal cord compression by tophaceous gout who developed progressive spastic paraplegia and lower extremity numbness acutely over a 5-day period. Yafei Cao et al., in 2019 reported a case of a patient that presented with quadriparesis that developed over 3 days, who was empirically treated for spinal gout. Liu T, et al., in 2015 reported an unusual case of thoracic spinal cord compression caused by extradural tophaceous deposits whose initial diagnosis had been lymphoid malignancy. Author did analysis of 26-year-old man with severe tophaceous gout presented with a 4-month history of progressive weakness and dyschesia of both lower extremities. In 2018, Ding et al. reviewed the characteristics of 30 previously reported cases of thoracic spinal cord compression caused by tophaceous gout and found that at the onset of disease, 60% of patients were presented with back pain and 43.3% had weakness and/or numbness in their lower limbs. HosseinElgafyet al., in 2016 in their review of literature described the clinical picture of 68 spinal gout patients. According to this investigation, 47 (69.1%) of patients were presented with localized back/neck pain, 38 (55.9%) with some form of spinal cord compression, defined as weakness, numbness, loss of bladder or bowel control, and decreased sensation below the compression level, 17 (25%) with spinal nerve root compression or radiculopathy, defined as motor dysfunction or dysesthesia along the course of a specific nerve caused by compression of its root, 13 (19.1%) with fever, 1 (1.5%) with cranial nerve palsy, and 2 (3.0%) with atlanto-axial subluxation.

So, due to its rarely encountered in clinical practice and the lack of typical defining criteria, the diagnosis of spinal gout is quite difficult and easily misdiagnosed. It is recommended that patients presenting with axial pain; radicular pain or myelopathy; and especially high uric acid levels, with or without a history of gout, should be evaluated for spinal gout.

## Halytska V.O. BRONCHIAL ASTHMA IN COMBINATION WITH DIABETES MELLITUS TYPE 2 – THE CURRENT STATE OF THE PROBLEM

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According to WHO, the number of patients with bronchial asthma (BA) continues to grow rapidly in the world and by 2025 the number of patients with asthma seems to be increased by 100 million people. According to GINA 2019, the prioritized task is to study clinical and functional signs of asthma phenotypes in case of comorbid states presence, as well as detection of biomarkers of the pathological process. Despite all the success achieved in the diagnostic process and treatment, diabetes mellitus (DM) continues to be among the top 10 causes of death in the world (9th place), and in the DALY list – 8th place.

The aim is to analyze literature on the issues of comorbid asthma and diabetes mellitus type2. The full-text test mode access to THE ELSEVIER, SCOPUS, EBSCO, MEDLINE, PUBMED, SPRINGER database had been used, as well as authoritative Ukrainian and foreign therapeutic editions, in particular pulmonology journals.

In the study conducted in 2021, Gabor Tomisa indicated the prevalence of DM among patients with asthma in the broad range of 0,8-13,9%. The risk of asthma in patients with diabetes is 2,2 times higher than for patients without diabetes. The combination of DM type 2 and BA, which