

fibers and inulin, thus it can be given as a complement therapy for decreasing the dose of usual hypolipidemic drugs, avoiding their side effects.

**Andrusha A.B.**  
**ASSESSMENT OF THE VASCULAR WALL STATE IN**  
**PATIENTS WITH GOUT AND COPD**

**Kharkiv National Medical University, Kharkiv, Ukraine**

Disorders of the elastic properties of large arteries is a pathogenetic element of many cardiovascular diseases. At present, the mechanisms of cardiovascular system damage are studied at rheumatic pathologies. For this reason, it is extremely important to study atherosclerosis at preclinical stages. The "gold standard" for evaluation of vessel stiffness is the use of the SphygmoCor apparatus which based on the determination of pulse wave velocity (PWV). The study of the state of the vascular wall by this method allows to diagnose arterial disease at an early stage. To study the rigidity of large vessels, it is optimal to determine the index of the reflected wave - the index of augmentation (IA). A large number of studies have been carried out which proved that the PWV estimated by the carotid-femoral method is an independent predictor of total and cardiovascular mortality not only in patients with hypertension, but also in the general population as a whole.

The prevalence of the combined course of hyperuricemia and gout with other metabolic disorders and diseases is significantly high. The links between gout and arterial hypertension, coronary heart disease, stroke, diabetes mellitus type 2, obesity, lipid metabolism and insulin resistance have been studied. While, concomitant diseases at COPD (hypertension, IHD, arrhythmia, stroke, diabetes mellitus) and its systemic complications (cachexia, atrophy of skeletal muscles, osteoporosis, anemia, anxiety-depressive disorders) affect the clinical state of patients, worsen the prognosis. Similar comorbid conditions and complications at gout and COPD increase the likelihood of a combination of gouty arthritis and chronic pulmonary pathology. It can be assumed that both at gout and at COPD, there are unknown pathogenetic links that determine the clinico-pathogenetic dependence and form a formidable tandem Gout - COPD.

**The aim** of the study was to assess the state of the vascular wall in patients with isolated gout and in combination with COPD.

**Materials and methods.** Diagnosis of gout was carried out using the criteria for classification EULAR (2010). The diagnosis of COPD was established according to the criteria GOLD. Vessels stiffness was made using apparatus SphygmoCor (AtCor Medical), pulse wave velocity and augmentation index were estimated. PWV was studied in the carotid-femoral region. 44

patients (36 men and 8 women) were examined. The examination did not include patients with concomitant cardiovascular pathology (in order to exclude changes in vascular stiffness due to these pathologies). The average duration of a history of gout varied from a year to 8 years, COPD - from 2 to 5 years. All patients were divided into groups: first group consisted of 19 patients with gout in combination with COPD, the second group - 11 persons with gout, the third group - 14 people with hyperuricemia (asymptomatic gout). The control group comprised 20 practically healthy people.

**Results.** We found that the main index of the elastic arterial properties (pulse wave velocity) - was above the norm in the I and II group of patients, whereas in patients with hyperuricemia its value was comparable with that in the control group. An increase in the augmentation index was noted in all patient groups. We have revealed a correlation between the parameters of the vessel wall state and some characteristics of gout and COPD. For example, a direct correlation was established between the index of the reflected wave (IA) and the duration of the anamnesis of pulmonary pathology ( $r=0,59$ ;  $p<0,05$ ), smoking history ( $r=0,63$ ;  $p<0,05$ ) and duration of gout disease ( $r=0,51$ ;  $p<0,05$ ).

**Conclusions.** Gouty arthritis worsens the elastic properties of the vascular wall, and the presence of COPD in patients with gout leads to a significant increase in arterial stiffness, the combined course of gout and COPD increases the stiffness of the vessels and reduces their elasticity, which is manifested by an increase in indicators PWV and IA. Essential factors affecting the condition of the vascular wall are smoking experience and the duration of pulmonary and articular pathology. The absence of significant differences in pulse wave velocity in patients with hyperuricemia and healthy individuals, probably indicates that the vascular wall rigidity is less dependent on the level of uric acid, than, for example, on the inflammatory process that occurs at symptomatic gout. In this case, the mechanisms of the possible effect of hyperuricemia on the elastic properties of the vascular wall need further study.

**Breslavets A.V.<sup>1</sup>, Iegudina Ye.D.<sup>2</sup>, Syniachenko O.V.<sup>3</sup>, Verzilov S.N.<sup>3</sup>**  
**ANGIOPATHY AT SYSTEMIC RHEUMATIC DISEASES**

<sup>1</sup> **Centre of Clinical and Preventive Medicine, Kyiv,**

<sup>2</sup> **Dnipropetrovsk Medical Academy, Dnipro,**

<sup>3</sup> **Donetsk National Medical University, Lyman**

The systemic rheumatic diseases (SRD) group includes systemic lupus erythematosus (SLE), systemic scleroderma (SS), rheumatoid arthritis (RA) ankylosing spondylitis (AS), Henoch-Schonlein purpura (HSP), and microscopic polyangiitis (MPA) which are characterized by increase arterial