

cells. The diagnosis of a mieloma disease was established on the basis of existence of one large criterion (33% of plasmatic cells) and one small criterion (the osteoliz center according to a skull X-ray analysis). The patient was transferred to hematologic department.

Conclusions: This case attracted attention thanks to a demonstration of a mieloma disease HF and DN which appeared against the background of CAD, hypertension and DM type 2, and the nonspecific nature of clinical symptomatology sharply aggravated diagnostic search.

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## **COMPARISONS OF TRANSMITRAL BLOOD FLOW TYPES IN PATIENTS WITH CORONARY ARTERY DISEASE AND DIABETES MELITUS TYPE 2**

Introduction: Comorbidity is an important medical problem for today. The studying of the interfaced course of the most widespread pathologies as coronary artery disease (CAD) and the diabetes melitus (DM) type 2 is especially relevant. The community of pathogenetic links of explains prevalence of a comorbid cases of these diseases, an important question in diagnostics and forecasting of which there is current definition of diastolic function of the left ventricle (LV) and type of transmitral blood-groove.

Aim: to carry out the comparative assessment of types transmitral blood flow in patients with coronary artery disease at existence or absence of diabetes melitus type 2.

Materials and methods. 50 participants of a research that were on treatment in cardiological department of KNP "City Clinical Hospital № 27" of the Kharkiv city council were examined. There were created groups: the 1st group was made by 26 patients with CAD and DM type 2 with the average age of  $65,7 \pm 3,91$  years, to the 2nd group there were entered 18 patients with the isolated CAD whose average age was  $63,1 \pm 2,37$  years . the 3rd group (group of control) was made by 6 almost healthy people with average age of  $57,29 \pm 2,61$  years. For establishment of type of transmitral blood-groove there was used echocardiographic inspections (an EchoCG) with the ultrasonic

device RADMIR (Ultima PRO 30) (Ukraine). For establishment of the diagnosis of DM type 2 blood serum glucose level was determined with the glucose oxidase method on an empty stomach and glucosed hemoglobin (HbA1c) by a photometric method using a test system of Reagent (Ukraine). Mathematical processing of results was carried out by means of the Statistica 8.0 software package (StatSoft Inc, the USA).

Results: In patients with the isolated CAD the following features were revealed: 50% had pseudonormalization type, 30.7% - type of feasibility relaxation, 11.5% - restrictive type and 7.7% - normal type. Concerning patients with CAD and DM type 2, 70.3% of patients of this group showed a transmitral blood flow by the pseudonormalization type, 21.6% - restrictive type, 5.4% - type of feasibility relaxation, and 2.7% - normal type. In all patients of control group it is revealed normal type of a transmitral blood flow.

Conclusions: It was established that existence of diabetes melitus type 2 influences on the type of a transmitral blood flow in patients with coronary artery disease. Patients with coronary artery disease and diabetes melitus type 2 more often showed pseudonormalization type and restrictive type, and patients with coronary artery disease without diabetes melitus type2 - pseudonormalization type and type of feasibility relaxation.

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Among the many pathogenetic mechanisms of vascular injury in ischemic heart disease and type 2 diabetes mellitus (type 2 DM), endothelial dysfunction is crucial. An important role is played by indicators of inflammation and endothelial dysfunction in the development of complications of acute myocardial infarction (AMI). Asymmetric dimethylarginine (ADMA) is a new risk factor for cardiovascular disease associated with a spectrum of clinical situations characterized by impaired production of nitric oxide. As a structural analogue of L-arginine, ADMA suppresses the activity of all isoforms of endothelial nitric oxide synthase (NOS), causing impaired mechanisms of formation of nitric oxide in blood plasma and tissues. Plasminogen activator inhibitor