



endotheliocytes and their apoptosis. According to Górká et al., forced expiratory volume in 1 second (FEV 1) correlates with duration of disease; reverse correlation is found with smoking stage and quantity of tissue inhibitor of metalloproteinases-1 (TIMP-1). Generalization of endothelial dysfunction with atherosclerosis and increasing of arterial stiffness are significant predictors of development of IHD. Other mechanism include chronic hypoxia due to decreased perfusion, which leads to violation of contractility of left ventricle and cardiac output. De Miguel Díez et al. report the risk of development of comorbid IHD in patients with moderate and severe obstruction is significantly higher, which correlates with concentration of C-reactive protein.

Conclusions. Increasing frequency of COPD, presence of significant clinical and biochemical mechanisms of development, burdening of course and common etiologic, pathogenetic and prognosis chains of comorbid CVP, especially IHD, promote doctors to consider high risk of its development, provide measures of prognosis and treatment.

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**COPEPTINE, MROROADM, CARDIOHEMODYNAMIC INDICES AND LIPID PROFILE UNDER THE EFFECTS OF ZOFENOPRIL AND ENALAPRIL IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION WITH CONCOMITANT OBESITY.**

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Acute myocardial infarction (AMI) takes first place in disability and mortality in many countries, especially in conditions of concomitant obesity. Despite numerous researches in the world about prescription of angiotensin converting enzyme inhibitors (ACEi) to patients with AMI, there are many open and contradictory questions, which determine actuality of research.

Aim of research — to evaluate efficiency of treatment of patients with AMI and obesity basing on comparison of effect of zofenopril and enalapril on the indices of cardiohemodynamics and lipid profile.



Methods of research. It was examined 75 patients with ST-segment elevated acute myocardial infarction (STEMI) and concomitant obesity. Copeptin have been estimated by ELISA with reagents «Human Copeptin» (Biological Technology, Shanghai), MRproADM - «Human mid-regional pro-adrenomedullin (MRproADM)» (Biological Technology, Shanghai). Echocardiography were performed for all patients and measured total cholesterol (TC), high-density lipoproteids (HDL), low-density lipoproteids (LDL), very-low-density lipoproteids (VLDL), triglycerides (TG) and atherogenic coefficient (AQ). All patients have been prescribed treatment according to Order of Ministry of Health №455 from 02.07.2014 “Unified clinical protocol of emergency, primary, secondary (specialized) and tertiary (highly specialized) medical help and medical rehabilitation of patients with acute coronary syndrome with ST elevation”. For comparison of therapeutic effect, there have been formed 2 groups of patients: 1 group of patients with AMI and obesity, who received enalapril 10-40 mg per day with standard therapy; 2 group of patients with AMI and comorbid obesity, who received zofenopril 15-60 mg daily with standard therapy (n=38). Statistical assessment has been performed using statistical software package «Microsoft Excel». Data are shown as mean and error of mean.

Results. In first group copeptin decreased on 77,01 % ( $p<0,05$ ), MRproADM on 52,13% ( $p<0,05$ ), end-diastolic volume (EDV) on 10,51 % ( $p<0,05$ ), end-systolic volume (ESV) on 9,6 % ( $p<0,05$ ), ejection fraction (EF) increased on 10,87 % ( $p<0,05$ ), TC decreased on 10,5 % ( $p<0,05$ ), LDL on 15,9 % ( $p<0,05$ ), VLDL — 35,5 % ( $p<0,05$ ), and HDL increased on 13,2 % ( $p<0,05$ ). In second group there have been found higher significant changes: copeptin increased in on 83,97 % ( $p<0,05$ ), MRproADM on 52,3 % ( $p<0,05$ ), EDV on 10,6 % ( $p<0,05$ ), ESV on 15,19 % ( $p<0,05$ ), EF increased on 15,49 % ( $p<0,05$ ), TC decreased on 13,1 % ( $p<0,05$ ), LDL — 21,04 % ( $p<0,05$ ), VLDL — 38,89 % ( $p<0,05$ ), HDL increased on 44,4 % ( $p<0,05$ ). Among indices of left atrium, end-diastolic and end-systolic dimensions, thickness of back wall, interventricular septum significant changes haven't been found ( $p<0,05$ ). Also, there has been found tendency to decreasing of indices of TG and AQ, which hasn't reached significance level ( $p=0,05$ ).



Outcomes. Thus, the most significant positive changes as decreasing of neuro- humoral mediators (copeptin and MRproADM), normalization of morpho-functional characteristics (because of reverse remodeling of left ventricle) and indices of lipid profile were found in patients, who recieved zofenopril, which represent high cardioprotective activity.

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**DYNAMICS OF SOLUBLE CD40-LIGAND AND VON WILLEBRAND FACTOR  
WITHIN THE FIRST DAY OF ACUTE MYOCARDIAL INFARCTION IN  
PATIENTS WITH CONCOMITANT DISTUBBANCES OF CARBOHYDRATE  
METABOLISM**

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Aim of study: to estimate the dynamics of endothelial-dependent markers - sCD40L and VWF in patients with acute myocardial infarction (AMI) and diabetes mellitus type 2 (DM2).

Materials and methods: 70 patients with AMI and type 2 DM were enrolled in the study. They were divided depending on the time that has passed after occurrence of pain syndrome caused by AMI: 12 patients within 2 hours after AMI; 13 patients within 2-6 hours after AMI; 45 patients after 6 hours of AMI. VWF blood serum levels were determined with commercial enzyme linked immunosorbent assay ELISA kit (Technoclone, Vienna, Austria), sCD40L level – with the usage of commercial ELISA test kit (YH Biosearch Laboratory, Shanghai, China). The data were processed statistically with Microsoft Office Excel software: the mean arithmetial value (M) and standard error of the mean (m) were calculated, for estimated probability and validity of the obtained data, Student's t-test (p) was done.

Results. According to the received data, the highest concentrations of sCD40L and vWf were registered in the interval of 2-6 hours after occurrence of AMI ( $3,95 \pm 0,01$  ng/ml and  $2,09 \pm 0,01$  IU/ml accordingly). Considering that sCD40L and vWf, that mainly expressed on the surface of endotheliocytes and platelets, their high concentrations