**Biomarkers of left ventricle remodeling in overweight patients with essential hypertension**

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The aim of our investigation was studying of cytokines activity in overweight patients with essential hypertension depending on peculiarities of left ventricle remodeling.

Material and methods: 152 patients were examined. Age 30-80. Standard clinical, laboratory and instrumental methods were used. Oncostatin M and IL-6 were measured using ELISA Kit, RayBiotech, Inc. Ultrasound of the heart was performed in accordance with the recommendations of the European and Ukrainian Association of Echocardiography. Relative wall thickness (RWT) that reflects geometrical changes of left ventricle (LV) was calculated as RWT=(posterior wall thickness (PWT)+interventricular sept thickness (IVT)) / diastolic size). Patients were divided according to gender and changes in relative wall thickness (RWT).

Results: the most part of patients had moderate changes of RWT. According to our investigation, LV remodeling was developed rateably to anamnesis of the disease and SBP. Patients with increased RWT were characterized by significantly higher levels of Oncostatin M 27,53±2,43 and IL-6 20,01±1,61 comparing to control group (7,90±0,13 and 2,58±0,13), and ones with normal RWT (20,00±3,44 and 15,28±1,68). Correlation analysis showed positive relationship of Oncostatin M, IL-6 with SBP, DBP (r=0,43, and r=0,55 correspondently, р<0,05), anthropometric measurements (waist ratio - r=0,74, р<0,05) and parameters of LV remodeling (LV myocardial mass r=0,45, р<0,05) in patients with essential hypertension.

Conclusion: results of our investigation showed involvement of oncostatin M, IL-6 in process of LV remodeling in overweight patients with essential hypertension.