THE RELATIONSHIP BETWEEN RESISTIN, DYSLIPIDEMIA AND DIASTOLIC DYSFUNCTION IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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The development of diastolic dysfunction (DD) in patients with type 2 diabetes mellitus (DM2) is associated not only with insulin resistance, hyperinsulinemia, dyslipidemia and glucose toxicity, but also with the activation of pro-inflammatory cytokines.

The purpose of the study was to evaluate the relationship between the state of lipid metabolism, resistin activity and DD in patients with DM2.

Methods. The study included 102 middle age patients with DM2 without severe diabetic complications. No clinically significant coronary artery disease was diagnosed in examined patients; the mean BP level was 133±1.28/82±0.65 mm Hg (M ± m). The levels of total cholesterol (TC), high density lipoprotein cholesterol (HDL-C), triglycerides (TG), and low density lipoprotein cholesterol (LDL-C) were defined by biochemical methods. The level of resistin was determined by immune-enzyme assay. Echocardiographic method was performed to measure peak velocity of early diastolic filling flow (peak E), peak velocity of late diastolic filling flow (peak A), the peak E/peak A ratio (E/A), and deceleration time of early diastolic filling (DT).

Results. The significant ($p < 0.05$) correlations were revealed between resistin, lipid profile, and DD: between resistin and TC (R = 0.611), between resistin and TG (R = 0.448), between resistin and LDL-C (R = 0.569) between resistin and the E / A (R = -0.275), between resistin and DT (R = 0.253); between TG and DT (R = 0.237), between HDL-C and DT (R = -0.296), and between LDL-C and E/A (R = -0.209).

Conclusions: The received data support the fact that resistin takes part in the development of structural and functional pathology of the myocardium, which subsequently leads to the formation of chronic heart failure in patients with type 2 diabetes mellitus.