THE RELATIONSHIP BETWEEN RESISTIN, INTERLEUKIN-6 LEVEL 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 hyperglycemia, insulin resistance and dyslipidemia, but also with the activation of pro-inflammatory cytokines. At the same time the extent of pro-inflammatory cytokines involvement into the development of DD in patients with DM2 remains understudied.

The purpose of the study was to evaluate the relationship between the state of resistin activity, level of interleukin-6 (IL-6) 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 133/82 mm Hg (M±m). The levels of resistin and IL-6 were 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, IL-6 and DD: between resistin and IL-6 (R=0.71), between resistin and E/A (R=-0.275), between resistin and DT (R=0.253), between IL-6 and E/A (R=-0.278).

Conclusions: The received data support the fact that resistin and IL-6, which are a pro-inflammatory adipokines, along with known risk factors such as dyslipidemia, insulin resistance, and others, take 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 DM2.