RELATIONSHIP BETWEEN VASPIN AND CAROTID INTIMA MEDIA THICKNESS IN PATIENTS WITH DIABETES TYPE 2

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Background. Carotid intima-media thickness (C-IMT) is a surrogate marker of subclinical atherosclerosis that is measured to prevent cardiovascular disease. Type 2 Diabetes Mellitus (T2DM) is a significant risk factor for cardiovascular events development. It is well known that a lot of adipocytokines can be involved into regulation of metabolic processes and inflammatory response. Both of these processes take part in atherosclerosis development. Vaspin is a molecule belonging to adipokine family which is associated with insulin resistance and obesity in humans. However, the relationship between serum vaspin levels and atherosclerosis remains unknown.

Aim. To assess relationship between C reactive protein, carotid intima-media thickness and the level of vaspin in patients with type 2 Diabetes Mellitus.

Materials and methods. The study involved 31 patients (25 men) with T2DM. The following parameters were assessed: BMI, C reactive protein (CRP), C-IMT. The plasma level of vaspin was determined by ELISA. 10 healthy volunteers were included into control group

Results. Fasting serum vaspin concentrations were significantly ($p<0.05$) higher in patients with T2DM versus control group (3.47 pkg/ml vs 2.42 pkg/ml). Serum vaspin levels significantly correlated with C-IMT ($r = 0.37$, $p < 0.02$) as well as with CRP levels ($r = 0.35$, $p < 0.03$). The significant relationship between vaspin and BMI wasn`t found.

Conclusion.

Serum vaspin levels were significantly higher in patients with type 2 Diabetes Mellitus compared to the control group. The obtained data suggest that serum vaspin level positively correlated with carotid intima-media thickness. Also, vaspin had significant relation to the level of inflammation marker C reactive protein. The role

of type 2 Diabetes Mellitus in the changes is yet to be investigated. In addition, serum vaspin levels had no significant correlation with body mass index. Our results may suggest a role of vaspin in atherosclerosis development further investigation is needed.