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**SIGNIFICANCE OF METABOLIC PARAMETERS IN PATIENTS WITH
TYPE 2 DIABETES MELLITUS AND CHRONIC PANCREATITIS IN
FORECASTING THE LEVEL OF VASPIN**

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Introduction. Adipokines are closely associated with the development of diseases and conditions such as type 2 diabetes mellitus (T2-DM), dyslipidemia, hypertension, atherosclerosis and inflammation, as they contribute to the development of insulin resistance, metabolic disorders, stimulate local inflammation and may affect atherogenesis process. Vaspin, a new serine protease inhibitor produced by visceral adipose tissue is an adipokine with insulin-sensitive and anti-inflammatory properties and has angio- and cardioprotective effects.

Aim. Identify parameters that affect the level of vaspin in patients with diabetes mellitus type 2 and chronic pancreatitis (CP).

Materials and methods. 114 patients were involved in the study. Group I – patients with isolated T2-DM (n=31); Group II - patients with CP (n=23); Group III – patients with a combined T2-DM with CP (n=60). The mean age of the involved patients -55.04±1.0 years. The control group (n=20) was representative by age and sex.

Evaluation of parameters of lipid, long- and short-term carbohydrate metabolism, functional state of the pancreas, c-reactive protein (CRP) and adipocytokines – vaspin and tumor necrosis factor- α (TNF- α) were performed in the study. The presence of atherosclerotic plaque on the wall of the common carotid artery was assessed by ultrasound.

Results. Based on the obtained data, which are presented below as the average in each studied groups and using regression analysis can be considered next parameters as impact factors into level of vaspin: immunoreactive insulin (20.31- I gr.; 13.93 - II gr.; 22.53- III gr.; vs control -11.07) μ IU/ml; for groups I and III; Fasting plasma glucose level (8.18- I gr.; 5.40 - II gr.; 8.57- III gr.; vs control-4.57) mmol/l for group III; Elastase-1 (292.4- I gr.; 167.8 - II gr.; 137.51- III gr.; vs control -348.96) mkg/g;

for groups I and III; TNF- α (6.87- I gr .; 7.83 - II gr .; 9.79- III gr ; vs control -4.20) pkg/ml for all groups; CRP (1.33- I gr.; 3.1-II gr.; 6.73 III gr.; vs control -0.12) mg/l for group II; Triglycerides (2.35- I gr.; 1.79 - II gr.; 2.58- III gr.; vs control -1.26) mmol/l for group II; Very Low Density Lipoproteins (0.99- I gr.; 0.7 - II gr.; 1.28 - III gr.; vs control -0.57) mmol/l for group II; The presence of atherosclerotic plaques only in III gr. was evaluated as impact factor (n=17/54.8% - I gr.; n=6/26% - II gr.; n= 41/68.3% -III gr.; vs control -0;). The level of vaspin was (3.47-I gr.; 2.73-II gr.; 1.78 - III gr.; vs control -2.47) pkg/ml. The combination of parameters that had a key impact on the level of vaspin was observed in the group with comorbid pathology.

Conclusions. The results indicate that the disturbance of carbohydrate metabolism and presented signs of inflammatory process influenced vaspin level. Exocrine functional insufficiency of the pancreas did not significantly affect the level of the studied adipokine. Existence of CP as an inflammatory process lead to increasing insulin resistance and atherogenesis process on the background of T2-DM. The result of metabolic disturbance in the group III associated with new parameter of impact-"atherosclerotic plaque". Adipocytokine vaspin can be regarded as a potential marker of cardiovascular risk in patients with T2-DM with CP.