THE PECULIARITIES OF ATHEROSCLEROTIC CORONARY ARTERIES LESION IN PATIENTS WITH CORONARY ARTERY DISEASE AND TYPE 2 DIABETES MELLITUS

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Purposes: To assess the peculiarities of atherosclerotic coronary arteries (CA) lesion in patients with coronary artery disease (CAD) and type 2 diabetes mellitus (T2DM).

Materials and methods: We provide a retrospective analysis of 90 cases of patients with CAD (54 males, aged 60,5±4,7 years). Baseline characteristics of patients included history of CAD (7,2±2,3 years), T2DM (4,7±0,5 years). All patients were divided into 2 groups: 1st group - patients with concomitant T2DM (n = 30), 2nd group (n = 60) - patients without concomitant T2DM. The levels of total cholesterol (TC), low-density lipoprotein cholesterol (LDL), very LDL (VLDL), triglycerides (TG), high-density lipoprotein cholesterol (HDL), fasting blood glucose and level of HbA1c were determined. The presence and extent of CA occlusion were performed using coronary angiography.

Results: Among 1st group of patients in 73% cases registered atherosclerotic lesion of two- and three CA, which have been localized in the middle and distal segments of CA, in the 2nd group at 67% cases registered atherosclerotic lesion of one CA ($p< 0,05$). The degree of occlusion of the CA was significantly higher in the 1st group in which rates of TC, LDL cholesterol, TG, HbA1c were greatest. The level of HbA1c positively correlated with the degree of CA occlusion ($p = 0,38$, $p<0,05$). We also evaluated positive correlation between the degree of CA occlusion and the level of LDL cholesterol ($r = 0,56$, $p < 0,05$), and TG levels ($r = 0,49$, $p < 0,05$).

Conclusions: Among patients with CAD and T2DM most frequently register diffuse and widespread coronary arteries injury, multivessel lesions which mainly localized in the middle and distal segments of CA. These changes were associated with significantly higher levels of LDL cholesterol, TG and lower HDL cholesterol, and parameters of carbohydrate metabolism.