RETROSPECTIVE ANALYSIS OF CORONARY ANGIOGRAFY IN PATIENTS WITH CORONARY ARTERY DISEASE ACORDING TO METABOLIC STATUS

Zhuravlyova L., Lopina N., Demchenko I.

Kharkiv National Medicine University

Purposes: To provide retrospective analysis of coronary angiography in patients (pts) with coronary artery disease (CAD) according to the metabolic status.

Materials and methods: We provide a retrospective analysis of 90 cases of pts with CAD (54 males, aged 60,5±4,7 years). Baseline characteristics of pts included history of CAD (7,2±2,3 years), type 2 diabetes mellitus – T2DM (4,7±0,5 years). All pts were divided into 2 groups: 1st group (1gr) - pts with concomitant T2DM (n=30), 2nd group(2gr) (n=60) - pts without 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 1gr of pts in 47% cases (n=14) registered atherosclerotic lesion of two CA and in 26% (n=8) lesion of three CA compared with the 18% (n=11) and 7% (n=4) respectively in the 2gr ($p<0.05$). Lesion of one CA among pts of 1gr registered in 20% (n=6) cases compared with 67% (n=40) cases among 2gr ($p<0.05$). CA lesion among 1gr of pts has been localized in the middle and distal segments of CA in 64% of cases compared with 20% in the 2gr ($p<0.05$). The degree of occlusion of the CA was significantly higher in the 1gr in which rates of TC, LDL cholesterol, TG, HbA1c were the highest. The level of HbA1c positively correlated with the degree of CA occlusion ($p=0.38$, $p<0.05$). We also evaluated 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 pts with CAD and T2DM most frequently register diffuse and widespread CA 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.