CARDIOVASCULAR COMPLICATION RISK ASSESSMENT WITH LDL-C/APO B AND HDL-C/APO A1 RATIOS IN TYPE 2 DIABETES MELLITUS PATIENTS

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Aim: Lipoprotein metabolism abnormalities play an important role for the development of cardiovascular complications, which is the major factor for death in Type 2 diabetics. The presence of normal lipid profile in one half of the patients with cardiovascular disease warrants the need for new parameters for the risk assessment. We aim to investigate the association between lipid metabolism abnormalities and cardiovascular complications in patients with Type 2 diabetes.

Methods: A total of 73 Type 2 diabetic patients (53 of whom were female and 20 were male), who were diagnosed according to American Diabetes Association criteria, were included into the study. They have never had antihyperlipidemic treatment. 43 patients had cardiovascular disease according to echocardiography, coronary angiography made in last six months and coronary bypass history. In control group, 30 patients had no history of CAD.

After 12 hours of fasting, serum total cholesterol, triglyceride, LDL and HDL cholesterol, apolipoprotein A1 and apolipoprotein B and lipoprotein (a) were measured using Roche/Hitachi modular autoanalyzer. Results: Serum LDL, HDL, total cholesterol, lipoprotein (a), triglyceride, Apo A1 and Apo B levels were not significantly different between Type 2 diabetic patients with and without CAD (p>0.05). On the other hand, LDL/Apo B and HDL/ApoA1 ratios were significantly lower in Type 2 diabetic patients with CAD (p<0.05). Conclusion: LDL/ApoB ratio, which could represent small dense LDL subgroup, was lower in Type 2 diabetics with cardiovascular complications. LDL/ApoB and HDL/ApoA1 ratios may be used to define cardiovascular disease risk in patients with Type 2 diabetes.