

Cardiology-2018- Impact of Acarbose on the Serum YKL-40 Concentrations of Coronary Heart Disease Patients with Impaired Glucose Tolerance - Yihong Ni- The Second Hospital of Shandong University, China

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Background:

YKL-40 is involved in inflammation and endothelial dysfunction, and associated with diabetes and atherosclerosis disease. In the present study we investigated the effect of an alpha-glucosidase inhibitor, acarbose, on coronary heart disease patients with impaired glucose tolerance (IGT) and the impact of acarbose on the serum YKL-40 concentrations of these patients

Methods:

This was a 24 weeks study in patients with established coronary artery disease (CAD) (50% stenosis on quantitative coronary angiography) who were newly diagnosed with IGT. After undergoing coronary angiography, CAD patients with IGT were randomly allocated to receive either acarbose 100 mg/d (C group) or no treatment group (B group) for 24 weeks. 30 patients with CAD and normal glucose tolerance were enrolled in control group (A group). Anthropometrical evaluation, fast blood glucose (FBG), postprandial blood glucose (PBG), serum fast insulin (FINS), lipid profile including triglycerides (TG), total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), HbA1c and serum YKL-40 were measured at baseline and 24 weeks end point.

Results: There were no significant differences among three groups in terms of age, gender distributions, SBP, DBP, TGTC, HDL-C, LDL-C, FBG. The levels of WHR, BMI, FINS, HOMA-IR, YKL-40 in the B group were significantly higher than A group. After 24-weeks treatment of acarbose (100 mg/d), the levels of WHR, TG, YKL-40 FINS, PBG, HbA1c and HOMA-IR were significantly reduced ($p < 0.05$)

Conclusions: After the treatment of acarbose 100 mg/d, the coronary heart disease patients with IGT had a beneficial effect in the glucose and lipid metabolism, the insulin resistance and serum YKL-40 concentrations were decreased

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