Assiut university
Staff Researches

Serum adiponectin and leptin as predictors of the presence and degree of coronary atherosclerosis

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Abstract:

Background The association of adipocyte-derived proteins, adiponectin and leptin, with the degree of coronary atherosclerosis has not been not been well elucidated. This study aimed to determine the relationship between serum adiponectin and leptin with the presence and degree of coronary atherosclerosis. Methods Seventy patients and 20 matched controls were recruited. Angiographic evaluation of coronary atherosclerosis was carried out by assessing three atherosclerotic indices, severity (transverse disease), extent (longitudinal disease), and pattern (lesion complexity). Results The independent predictors of atherosclerosis severity were larger waist/hip ratio, followed by higher lowdensity lipoprotein-cholesterol, low serum adiponectin level, older age, higher leptin level, current unstable angina, and finally previous myocardial infarction (MI). This model is a good one as indicated by the model-adjusted r2 (50%). For extent index, lower serum adiponectin level was by far the most important independent predictor, followed by higher low-density lipoprotein-cholesterol, older age, and previous MI, whereas higher serum leptin level was only a univariate predictor. The model-adjusted r2 was 65%. For pattern index, the independent predictors were previous MI, lower serum adiponectin level, larger waist/hip ratio, higher serum leptin level, older age, and higher fasting blood glucose level. The model-adjusted r2 was 62%. Conclusion Both serum adiponectin and leptin might play an important pathogenic role not only in the occurrence but also in the severity, extent, and lesion complexity in coronary artery disease patients. Coron Artery Dis 22:264269 c 2011 Wolters Kluwer Health | Lippincott Williams & Wilkins.

Keywords:

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