The association of insulin-like growth factor-1 with severity of coronary artery disease.

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Source

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Abstract

AIM:

Insulin-like growth factor-1 (IGF-1) has been identified as a valuable indicator for impaired glucose tolerance, and its relationship with the presence of coronary atherosclerosis has been also suggested. A few studies have assessed the relationship between IGF-1 level and severity of atherosclerosis. In the present study, the relationship between IGF-1 and coronary artery disease (CAD) was examined with particular attention to the association between this parameter and Gensini score as a good angiographic marker for determining extension and severity of CAD.

METHODS:

One hundred and seven patients with suspected CAD consecutively referred for selective coronary angiography at the Shafa Hospital in Kerman between April and September 2010 were prospectively enrolled. Total IGF-1 was measured using radioimmunoassay methods (Diagnostics Systems Laboratory, Iran). Selective coronary angiography was performed for all study patients and the Gensini score is computed by assigning a severity score to each coronary stenosis according to the degree of luminal narrowing and its importance based on location.

RESULTS:

According to the Spearman correlation analysis, total IGF-1 was directly correlated with Gensini score (Spearman's rho = 0.362, P = 0.041). Total IGF-1 was slightly related to the number of involved coronary vessels (P = 0.058). Relation between age-adjusted and sex-adjusted mean total IGF-1 levels with Gensini score remained significant (P = 0.046); however, the association between IGF-1 and the number of diseased vessels lost statistical significance after this adjustment.

CONCLUSION:

IGF-1 appears as a positive indicator for severity of CAD assessed by the Gensini score, and thus its concentration may be an important indicator for assessing the extent of coronary artery involvement.

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