

CYSTATIN C IN PATIENTS WITH CORONARY ARTERY DISEASE

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Objective: To assess the relation between level of serum Cystatin C and severity of coronary artery disease (CAD) in patients without chronic kidney disease (CKD).

Methods: In this cross-sectional study, we included 80 patients with CAD divided in two groups (group I with acute coronary artery disease and group II with chronic stable coronary artery disease). 40 patients in each group and acquired their demographic characteristics, medical histories and listings of the concurrent medications they were taking. All patients with CAD underwent ECG, echocardiography, coronary angiography, serum Cystatin C level, cardiac enzymes and other routine laboratory tests.

Results: As regards demographic data and comorbidities, there was no significant difference between the two groups in regard with gender, diabetes mellitus, hypertension or smoking. Also, as regard level of serum Cystatin C, the mean and SD in one vessel affection was 0.92 ± 0.07 while in two vessels affection was 1.07 ± 0.13 and three vessels affection was 1.41 ± 0.05 with ($P < 0.01$). Finally, there was a highly significant difference as regard Cystatin C level with mean and SD 1.21 ± 0.18 in ST-segment elevation MI while mean and SD was 0.96 ± 0.09 in Non ST-segment MI or unstable angina with ($P < 0.01$). There was a statistically significant correlation between level of Cystatin C and severity of CAD ($p < 0.05$).

Conclusion: Serum cystatin C has a significant effect on the severity of coronary artery disease (CAD), being higher in patients with three vessels disease and severe CAD.

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