

C-reactive protein 1059G/C gene polymorphism, C-reactive protein levels and acute myocardial infarction.

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Source

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Abstract

AIMS:

High-sensitivity C-reactive protein (hs-CRP) is an inflammatory marker, predicting the occurrence of acute myocardial infarction (AMI). Genetic predisposition to high baseline CRP might account for a high risk of heart diseases. Our study aimed at investigating an association of CRP 1059G/C gene polymorphism with plasma CRP levels and AMI in Egyptian patients.

METHODS:

Genotypes of 150 patients with AMI and 150 healthy sex and age-matched controls were analyzed using PCR-restriction fragment length polymorphism methods. hs-CRP concentrations were assessed.

RESULTS:

There was no significant association between CRP 1059G/C polymorphism and AMI. However, individuals with GG genotype had significantly higher plasma CRP concentration than those with GC and CC genotypes, in both controls (3.82 ± 1.03 vs. 2.34 ± 0.7 ; $P=0.001$) and patients with AMI (8.39 ± 2.6 vs. 6.67 ± 2.4 ; $P=0.005$).

CONCLUSION:

Our results revealed that CRP 1059G/C gene variation influences plasma CRP levels. Conversely, this polymorphism was not associated with the risk for AMI.