Association between the -174 G/C polymorphism of the interleukin-6 gene and myocardial infarction risk: a meta-analysis

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ABSTRACT. Numerous studies have evaluated the association between the -174 G/C polymorphism in the interleukin-6 gene (IL6) and myocardial infarction (MI) risk. However, the results from the published studies are inconclusive. The aim of this meta-analysis was to determine whether the IL6 -174 G/C polymorphism is associated with MI risk. A meta-analysis based on nine case-control studies was performed to address this issue. No significant associations between IL6 -174 G/C polymorphism and MI risk were observed in any of the genetic models (CC vs GG: OR = 1.18, 95%CI = 0.92-1.52; CG vs GG: OR = 1.09, 95%CI = 0.93-1.27; dominant model: OR = 1.11, 95%CI = 0.94-1.31; recessive model: OR = 1.10, 95%CI = 0.91-1.33). Furthermore, the subgroup analysis by ethnicity did not reveal
a significant association between the *IL6* -174 G/C polymorphism and susceptibility to MI in Caucasians. In conclusion, the results indicate that the *IL6* -174 G/C polymorphism does not contribute to MI risk.

**Key words:** -174 G/C polymorphism; Myocardial infarction; Interleukin-6