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### Abstract

**Background:** Interleukin-6 (IL6) gene polymorphism is an important inflammatory cytokine. It may play a major role in complications observed after CABG surgery. Therefore, the present study was designed to study the relationship between IL6 174G>C gene polymorphism and complications after CABG. The aim of this study was to investigate any probable relationship between IL6 174 G >C polymorphism and complications observed after CABG surgery.

**Methods:** In this case-control study, whole blood samples were obtained from all patients hospitalized for CABG surgery in Sina Hospital, Isfahan. Subject were divided into two groups of patients with (POC) or without (NPOC) complications. Information such as age, sex, degree of hemorrhage after the surgery, time spent in the intensive care unit (ICU), ventilation time, and inotropic support after the surgery was collected. Statistical analysis of the obtained data was performed using t-test and chi-square test.

**Findings:** We did not find a correlation between IL6 gene polymorphism and complications after CABG surgery (P = 0.126). However, a significant difference was observed. This difference for GG was P = 0.05 and for GC was P = 0.035 between two groups.

**Conclusion:** GG genotype may play a role for the inflammation and complications after CABG. Further studies with larger number of patients are recommended.

**Keywords:** Polymorphism, IL6 Gene, Post operative Complications, CABG.

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