



Cox-2 gene polymorphism and IL-6 levels in coronary artery disease

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ABSTRACT. Coronary artery disease is one of the leading causes of mortality and diabetes mellitus is one of its main risk factors due to microvascular and macrovascular complications, such as atherosclerosis. Atherosclerosis is now known to be an inflammatory process mediated by prostaglandins and several interleukins. As both are important in inflammatory processes, we examined Cox-2 (-765G > C) polymorphism and interleukin-6 levels in coronary artery disease patients compared to healthy controls. We also divided the patients into diabetic and non-diabetic groups to check the effects of diabetes mellitus separately. We found that the GG allele frequency was significantly higher in the patient group. Patients with the GG genotype had an approximately 2.78-fold higher risk of coronary artery disease. We also found that the Cox-2 (-765G > C) polymorphism is associated with lower interleukin-6 levels, which decreased in the order: GG > GC > CC.

Key words: Cox-2 (-765G > C); Polymorphism; Diabetes mellitus; Coronary artery disease; IL-6