Association between matrix metalloproteinase-9 rs3918242 polymorphism and development of coronary artery disease in a Chinese population

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ABSTRACT. We conducted a case-control study to investigate the role of one single nucleotide polymorphism of MMP-9 rs3918242 in the development of coronary artery disease. The rs3918242 was amplified with 435-bp DNA fragments using polymerase chain reaction coupled with restriction fragment length polymorphism. When compared with control subjects, patients with coronary artery disease had higher systolic and diastolic blood pressure, as well as higher triglycerides (P < 0.05), were more likely to suffer from diabetes mellitus, and had lower total cholesterol and high-density lipoprotein lipopolysaccharides. Using unconditional logistic analysis, we found that individuals with CT and TT genotypes were associated with increased risk of coronary artery disease in a co-dominant model, and the ORs (95%CI) were 1.50 (1.02-2.20) and 6.89 (2.51-23.41) for CT and TT, respectively. We observed that the T allele of rs3918242 was correlated with increased...
risk of coronary artery disease (OR = 1.88, 95%CI = 1.39-2.55). In conclusion, we suggest that the TT and CT genotypes and T allele of MMP-9 rs3918242 polymorphism is correlated with an increased risk of coronary artery disease in a Chinese population

**Key words:** Matrix metalloproteinase-9; Polymorphism; Coronary artery disease