Cite this as: Xiao WANG, Lei-zhi SHI, 2014. Association of matrix metalloproteinase-9 C1562T polymorphism and coronary artery disease: a meta-analysis . *Journal of Zhejiang University-SCIENCE B (Biomedicine & Biotechnology),* 15(3):256-263. [doi:1 0.1631/jzus.B1300088]

Association of matrix metalloproteinase-9 C1562T polymorphism and coronary artery disease: a meta-analysis

基质金属蛋白酶-9C1562T基因多态性与冠心病关系的Meta分析

Key words: Coronary artery disease, Matrix metalloproteinase-9, Polymorphism, Meta-analysis.

关键词：冠心病；基质金属蛋白酶-9；多态性；Meta分析

- The associations between matrix metalloproteinase-9 (MMP-9) C1562T polymorphisms and coronary artery disease (CAD) is still not clearly elucidated.

- In this study, we aimed to clarify the association between MMP-9 C1562T polymorphisms and CAD in a large-scale meta-analysis.

- Compared with C allele carriers, East Asian T allele carriers TT+TC had a significantly higher risk of CAD (OR=1.43; 95% CI: 1.03–1.99; P=0.031); however, there were no significant associations in Western populations (OR=1.06; 95% CI: 0.96–1.18; P=0.240) and West Asians (OR=1.13; 95% CI: 0.75–1.70; P=0.565)

- When further analyzing the association between C1562T polymorphisms and myocardial infarction (MI, the most serious type of CAD), the risk of TT+TC genotype versus CC genotype for MI was significantly higher for East Asians (OR=1.58; 95% CI: 1.26–1.97; P=0.000) but not in Western populations (OR=1.12; 95% CI: 0.99–1.26; P=0.078).

- Our study suggested an obvious ethnic difference between MMP-9 C1562T polymorphisms and CAD. MMP-9 C1562T polymorphism was significantly related to CAD in East Asians but not in either West Asians or Western populations.