GW23-e1537

A NOVEL POLYMORPHISM OF THE CYP4F2 GENE IS ASSOCIATED WITH ACUTE CORONARY SYNDROME

doi:10.1136/heartjnl-2012-302920k.38

Hong Yang, Zhenyan Fu, Yitong Ma, Yitong Ma. *Department of Cardiovascular Medicine, First Affiliated Hospital of Xinjiang Medical University, Urumqi, China*

Objectives CYP4F2 is responsible for metabolising arachidonic acid to 20-hydroxyeicosatetraenoic acid (20-HETE), which plays a crucial role in the regulation of cardiovascular homeostasis. The present study aimed to evaluate whether or not the CYP4F2 gene polymorphism is involved in acute coronary syndrome (ACS).

Methods Four CYP4F2 SNPs were genotyped (rs1558139, rs3093166, rs3093194, rs2108622) using the Real-Time PCR System. We examined the role of these SNPs for ACS using two independent case–control studies: one was in the Han population (326 ACS patients and 338 control subjects) and the other was in the Uygur population (265 ACS patients and 276 control subjects).

Results CC+CT carriers of SNP4 (rs2108622) genotype were more frequent among ACS patients than among controls not only in the Han population of men (97% vs 91%) but also in the Uygur population of men (95% vs 88%).After adjustment of confounding factors such as smoking, alcohol consumption, hypertension, diabetes, body mass index, the OR for carriers of the rs2108622 genotype for ACS was 4.180 (95% CI 1.304 to 13.400) in the Han population of men and 2.878 (95% CI 1.059 to 7.825) in the Uygur population of men.

Conclusions The rs2108622 genotype of CYP4F2 may be a genetic maker of ACS in the Han and Uygur population of men in western China.