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**RELATIONSHIP OF ARACHIDONATE 5-LIPOXYGENASE
ACTIVATING PROTEIN GENE SG13S114T/A POLYMORPHISM
WITH THE SERUM LEUKOTRIENE B4 LEVEL IN PATIENTS
WITH ACUTE MYOCARDIAL INFARCTION**

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Objectives To investigate the association of the serum leukotrienes (LT) B4 level with the ALOX5AP gene SG13S114T/A polymorphism in patients with acute myocardial infarction (AMI) in Chinese Han population of Sunan region.

Methods The ALOX5AP gene SG13S114T/A polymorphism was genotyped by PCR and restriction fragment length polymorphism analysis, and the serum LTB4 level (M/IQR) was measured by ELISA in 262 AMI patients (AMI group) and 132 subjects without coronary heart disease (CHD) (control group).

Results Serum LTB4 level in AMI group was significantly higher than the one in control group (477.97/370.52 pg/ml vs 200.57/236.65 pg/ml, $p < 0.001$). In AMI patients, no significant difference in the serum LTB4 level was found among any genotypes (AA, AT and TT) of ALOX5AP gene SG13S114T/A (517.98/392.00 pg/ml vs 492.31/427.55 pg/ml vs 495.29/398.54 pg/ml, all $p > 0.05$), and there was also no significant difference in serum LTB4 level among any genotypes in this locus within the same gender ($p > 0.05$). The serum LTB4 level was positively correlated with the smoking, and unrelated with the gender, age, hypertension, diabetes and hyperlipidaemia in AMI patients.

Conclusions In Chinese Han population of Sunan region, there are polymorphisms of ALOX5AP gene SG13S114 in patients with AMI and subjects without CHD. The serum LTB4 level in AMI patients is higher than those in subjects without CHD, but unrelated with ALOX5AP gene SG13S114 polymorphism.