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**RELATIONSHIP BETWEEN 5-LIPOXYGENASE  
ACTIVATING PROTEIN GENE SG13S89G/A  
POLYMORPHISM AND ACUTE CORONARY  
SYNDROME**

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**Objective** To investigate the distribution of ALOX5AP gene SG13S89G/A polymorphism and the relationship between the ALOX5AP gene SG13S89G/A polymorphism and acute coronary syndrome (ACS) in the Chinese Han population of Sunan region.

**Methods** Four hundred and ninety four patients with ACS (ACS group) and 479 control subjects who were free from coronary artery disease (control group) were recruited into the study. The SG13S89G/A polymorphism in ALOX5AP gene was determined by polymerase chain reaction and restriction fragment length polymorphism analysis.

**Results** The AA, GA and GG genotype of ALOX5AP gene SG13S89G/A exist both in ACS group and control group. The genotype distribution of the ACS group and control group conformed to the Hardy-Weinberg balance via  $\chi^2$  test ( $p>0.05$ ), which suggested that the selected sample is representative. As compared with those in the control group, there was no statistical difference of the frequencies of AA (0.21% vs 0.20%), GA (5.01% vs 5.06%) and GG (94.78% vs 94.74%) genotype, and G allele (97.29% vs 97.27%) in ACS group (all  $p>0.05$ ). Multivariate logistic regression analysis showed that there was no statistically significant correlation of ALOX5AP gene SG13S89G/A AA, GA and GG genotype, and G allele with ACS (all  $p>0.05$ ). Subgroup analysis showed that as compared with those in the control group, respectively, there was no significant difference of the frequencies distribution of AA, GA and GG genotype, and G allele in the AMI group, the UAP group, male ACS group, female ACS group and the elderly ACS group (all  $p>0.05$ ). Multivariate logistic regression analysis for above-mentioned five subgroup showed that there were no association of any genotype and G allele of the ALOX5AP

gene SG13S89G/A with AMI, UAP, male ACS, female ACS and the elderly ACS (all  $p > 0.05$ ).

**Conclusion** In the Chinese Han population of Sunan region, three genotypes including AA, GA and GG of ALOX5AP gene SG13S89G/A exist both in ACS group and control group; and there are no association of the ALOX5AP gene SG13S89G/A polymorphism with ACS, AMI, UAP, male ACS, female ACS and the elderly ACS.