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RELATIONSHIP OF PREGNANCY-ASSOCIATED PLASMA PROTEIN-A (PAPP-A) GENE IVS6+95 POLYMORPHISM WITH ACUTE CORONARY SYNDROME IN WOMEN

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Objective To investigate the association between the pregnancy-associated plasma protein-A (PAPP-A) gene IVS6+95 polymorphism and acute coronary syndromes (ACS) in women in the Chinese Han population of Suwan region.

Methods One hundred and forty six women with ACS and 204 control subjects who were free from coronary artery disease confirmed by cardio angiography were recruited into the study. The PAPP-A IVS6+95 polymorphism gene was determined by polymerase chain reaction and restriction fragment length polymorphism analysis. Clinical data such as gender, age, history of smoking, hypertension and diabetes mellitus, and plasma level of glucose and lipids were collected.

Results There was significant difference of the frequency of CC genotype between the ACS group and control group (10.96% vs 1.96%, $p=0.001$). As compared with those in the control group, the frequency of C allele in ACS group was higher (25.49% vs 34.25%) but was not statistically significant ($p=0.064$); Multivariate logistic regression analysis showed that there was significant correlation of the PAPP-A gene IVS6+95 locus CC genotype and C allele with ACS (p values was <0.001 and 0.014, respectively).

Conclusion The PAPP-A gene IVS6+95 polymorphism is strongly associated with risk of ACS in the Chinese Han women population of Suwan region; the CC genotype and the C allele may be significantly responsible for the risk of ACS.