



Association between polymorphisms in the adiponectin gene (*APM-1*) and atherosclerotic cerebral infarction in a Hainan Chinese Han population

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ABSTRACT. We investigated the association between polymorphisms in the adiponectin gene (*APM-1*) and atherosclerotic cerebral infarction (ACI) in a Chinese Han population of Hainan Province. Polymerase chain reaction-restriction fragment length polymorphism and gene sequencing were used to analyze the distribution of *APM-1* +45T/G and +276G/T genotypes and their alleles in 120 ACI patients and 120 healthy controls. No statistical correlation was found in the frequency and distribution of the genotype 45T/G between the ACI group and the control group. Genotypic frequencies of GG, GT, and TT at the *APM-1* +276 locus were 70.0% (84/120), 25.0% (30/120), and 5.0% (6/120), respectively, in the ACI group, while these values were 52.5% (63/120), 37.5% (45/120), and 10.0% (12/120), respectively, in the control group. The frequency of the G allele was 82.5% (198/240) in the ACI group and 71.25% (171/240) in the control group. The T allele frequency was 17.5% (42/240) in the ACI group and 28.75% (69/240) in the control group. Polymorphisms at the *APM-1* -276 locus in the case-controlled

groups showed significant differences in the genotype distribution and allele frequency between the 2 groups ($P = 0.041$). The occurrence of ACI in the Hainan Chinese Han population may be associated with +276G/T polymorphisms but not with +45T/G polymorphisms in the *APM-1* gene.

Key words: Adiponectin gene; Atherosclerotic cerebral infarction; Polymorphism; Single nucleotide polymorphism; Stroke