



Association of the interleukin-10 gene -1082A/G genetic polymorphism with risk of ischemic stroke in a Chinese population

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ABSTRACT. We investigated the possible association between two single nucleotide polymorphisms of *IL 10* (-1082A/G and -592C/A) and susceptibility to ischemic stroke. In total, 335 patients with proven ischemic stroke and 335 control subjects were recruited from Xinxiang Central Hospital between March 2013 and May 2015. The *IL 10* -1082A/G and -529C/A polymorphisms were investigated by polymerase chain reaction-restriction fragment length polymorphism. When compared with the control subjects, patients with ischemic stroke were more likely to be male, have a habit of tobacco smoking, have higher BMI, have hypertension or diabetes mellitus, and have higher levels of TC, LDL-C, HDL-C, and TG. The multivariate logistic regression analyses revealed that the AA genotype of *IL 10* -1082A/G was significantly associated with development of ischemic stroke in a Chinese population compared with the GG genotype (OR = 1.93, 95%CI = 1.15-3.25). In the dominant model, the association between GA+AA genotype of *IL 10* -1082A/G and risk of ischemic stroke was also significant compared with the GG genotype, and the adjusted OR (95%CI) for the GA+AA genotype was 1.41 (1.02-1.94). Thus, our study suggests that *IL 10* gene polymorphisms contribute to the development of ischemic stroke.

Key words: *IL 10* -1082A/G; *IL 10* -592C/A; Polymorphism; Ischemic stroke