Association between *IL-17A* and *IL-17F* gene polymorphisms and risk of gastric cancer in a Chinese population

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ABSTRACT. We conducted a case-control study to investigate the role of interleukin-17A (*IL-17A*) rs2275913 G > A and *IL-17F* rs763780 T > C polymorphisms in the development of gastric cancer. A hospital-based case-control design was performed, and 153 patients and 207 control subjects were consecutively selected from the Third Affiliated Hospital between May 2013 and December 2014. Polymerase chain reaction-restriction fragment length polymorphism was used to genotype for *IL-17A* rs2275913 G > A and *IL-17F* rs763780 T > C. The genotypes of *IL-17A* rs2275913 G > A and *IL-17F* rs763780 T > C did not deviate from Hardy-Weinberg equilibrium (P values were 0.44 and 0.11, respectively). By unconditional logistic regression analysis, we observed that the GG genotype of rs2275913 was associated with an increased risk of gastric cancer compared to the AA genotype [odds

ratio (OR) = 2.66; 95% confidence interval (CI) = 1.26-5.66]. The AG + GG genotype of rs2275913 increased the susceptibility to gastric cancer compared to the AA genotype, and the adjusted OR (95%CI) was 2.66 (1.26-5.66). Moreover, the GG genotype of rs2275913 was correlated with an elevated risk of gastric cancer when compared with the AA + AG genotype (OR = 2.15; 95%CI = 1.08-4.34). In conclusion, we found that the *IL-17A* rs2275913 G > A gene polymorphism was significantly associated with an increased risk of gastric cancer in co-dominant, dominant, and recessive models.

Key words: *IL-17A* rs2275913 G > A; *IL-17F* rs763780 T > C; Polymorphisms; Gastric cancer