Genetics and Molecular Research

IL-17 rs2275913 genetic variation contributes to the development of gastric cancer in a Chinese population

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Genet. Mol. Res. 15 (2): gmr.15027756
Received September 30, 2015
Accepted December 29, 2015
Published June 3, 2016
DOI http://dx.doi.org/10.4238/gmr.15027756

ABSTRACT. The purpose of this hospital-based case-control study was to assess whether the interleukin (IL)-17 rs2275913 genetic variation can influence susceptibility to gastric cancer. Samples from a total of 202 gastric cancer patients and 237 controls were collected from the Linyi People's Hospital between March 2013 and March 2015. The IL-17 rs2275913 gene polymorphism was identified by polymerase chain reaction and restriction fragment length polymorphism. When compared with control subjects, gastric cancer patients were older in age (OR = 3.89, 95%CI = 2.55-5.95), male (OR = 2.08, 95%CI = 1.39-3.10), had a habit of alcohol consumption (OR = 1.71, 95%CI = 1.15-2.55), and were more likely to be infected with *Helicobacter pylori* (OR = 2.76, 95%CI = 1.83-4.16). We observed that the AA genotype of the IL-17 rs2275913 polymorphism resulted in a 2.32-fold risk of gastric cancer compared to the GG genotype (OR = 2.32, 95%CI = 1.20-4.54; P = 0.01). The AG combined with AA genotype of the IL-17 rs2275913 polymorphism had more risk of developing gastric cancer than the GG genotype (OR = 1.50, 95%CI = 1.01-2.23; P = 0.04). Moreover, the AA genotype of the IL-17 rs2275913 polymorphism was correlated with a higher risk of developing gastric cancer than the GG and AG genotypes combined (OR = 2.01, 95%CI = 1.08-3.79; P = 0.02). In conclusion,

the results of our study suggest that the IL-17 rs2275913 polymorphism could contribute to the risk of gastric cancer.

Key words: Interleukin-17; rs2275913; Polymorphism; Gastric cancer

