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# Association between XPG gene polymorphisms and development of gastric cancer risk in a Chinese population

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**ABSTRACT.** We conducted a case-control study to investigate the role of three common single nucleotide polymorphisms (SNPs) in the xeroderma pigmentosum complementation group G (*XPG*) gene (rs2094258, rs751402 and rs17655) in the development of gastric cancer in a Chinese population. Between January 2012 and December 2014, samples from a total of 177 patients with gastric cancer and 237 control subjects were collected from the Ankang City Central Hospital. *XPG* rs2094258, rs751402 and rs17655 polymorphisms were genotyped using polymerase chain reaction-restriction fragment length polymorphism. Using logistic regression analysis, we found that the CC genotype of rs17655 was associated with an elevated risk of gastric cancer, and the adjusted odds ratio (OR) and 95% confidence intervals (95%CI) were 1.91 and 1.07-3.41, respectively. Moreover, individuals carrying the GC + CC genotype of rs17655 had an increased susceptibility to gastric cancer (OR = 1.61, 95%CI = 1.03-2.54). However, we did not observe a significant association between *XPG* rs2094258 and rs751402

 

polymorphisms and development of gastric cancer. In conclusion, our study suggests that the rs17655 polymorphism in *XPG* is associated with an increased risk of gastric cancer. The results of our findings should be further validated by further large sample size studies.

**Key words:** XPG; Polymorphism; Gastric cancer; Chinese population

 