



A case-control study indicates that the *TRIB1* gene is associated with pancreatic cancer

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ABSTRACT. Pancreatic cancer is a malignant neoplasm originating from transformed cells arising in tissues that form the pancreas. To investigate whether the tribbles homolog 1 (*Drosophila*) gene (*TRIB1*) is associated with pancreatic cancer in the Chinese Han population, we conducted this case-control study and genotyped 3 single nucleotide polymorphisms (rs2980879, rs2980874, and rs2235108) of the *TRIB1* gene in 182 patients and 359 normal controls of Chinese Han origin and analyzed their association. The results showed that the rs2980879

polymorphism was associated with pancreatic cancer [allele: $P = 0.023434$, genotype: $P = 0.03005$; odds ratio (OR) and 95% confidence interval (CI) = 0.727788 (0.552664-0.958404)], whereas the rs2980874 polymorphism had no association with pancreatic cancer [allele: $P = 0.749885$, genotype: $P = 0.699533$; OR and 95%CI = 1.041981 (0.809196-1.341734)], and the rs2235108 polymorphism was not associated with the disease [allele: $P = 0.629475$, genotype: $P = 0.547534$, OR and 95%CI = 1.128290 (0.690829-1.842770)]. Haplotype analyses and linkage disequilibrium tests were also conducted, and the results showed that these 3 loci are not in the same block. In conclusion, our study indicated that the *TRIB1* gene is associated with pancreatic cancer. More studies with larger samples are needed in order to support this finding.

Key words: *TRIB1* gene; Pancreatic cancer; Association study; SNPs