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第三十屆生物醫學聯合學術年會 投稿摘要表格(正本)

Association of Polymorphisms on Scaffolding Protein Encoding Gene *Caveolin-1* with Gastric Cancer in Taiwan

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Backgrounds: Gastric cancer is one of the leading causes of tumor-related death worldwide, for which the prevalence and mortality rates are very high in developed countries. Caveolin-1 (CAVI) is the main protein in the caveolin family and plays a role in tumorigenesis signaling. The contribution of CAVI genetic variants to gastric cancer is still largely unknown. In the present study, we aimed to investigate the role of CAVI genotypes in gastric cancer risk. **Materials and Methods:** We recruited 358 gastric patients and 358 cancer-free controls for CAVI genotyping analysis. Six single-nucleotide polymorphisms (SNPs) of CAVI, C521A (rs1997623), G14713A (rs3807987), G21985A (12672038), T28608A (rs3757733), T29107A (rs7804372), and G32124A (rs3807992), were genotyped by the polymerase chain reaction-restriction fragment length polymorphism method. **Results:** There was a significant difference between the gastric cancer and control groups in the genotypic frequency distribution of the CAVI G14713A genotypes (p=1.24*10⁻⁵), with those carrying the A allele having a higher risk for gastric cancer compared to those with the GG genotype (p=0.0001). **Conclusion:** Our findings suggested that CAVI genotype may determine the individual susceptibility to gastric cancer, and that the CAVI G14713A genotype may serve as a novel biomarker for early detection and prediction of gastric cancer.

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