**IL-16 rs4778889 polymorphism contribution to the development of renal cell cancer in a Chinese population**

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**ABSTRACT.** IL-16 plays an important role in affect the secretion of tumor-related inflammatory cytokines. We aimed to assess the role of interleukin-16 (IL-16) rs4778889 T/C and rs11556218 T/G polymorphisms in the occurrence of renal cell cancer (RCC). This study is composed of 274 RCC patients and 274 control subjects. Genotyping of polymorphisms was performed using polymerase chain reaction combined with restriction fragment length polymorphism analysis. All statistical analysis was carried out by the SPSS statistical software package, version 16.0 (SPSS Inc., Chicago, IL, USA). Using conditional logistic regression analysis, the TC and CC genotypes of rs4778889 exhibited a higher risk of RCC, with adjusted ORs (and 95% CIs) of 1.79 (1.23-2.62) and 2.67 (1.29-5.69), respectively. Moreover, under dominant and recessive models, individuals carried the rs4778889 polymorphism was exhibited elevated RCC risk, with adjusted ORs (and 95%CI) of 1.93 (1.35-2.76) and 2.11 (1.05-4.45), respectively. No significant differences were observed in rs11556218 genotype frequencies between the study groups. In conclusion, the
results of our study reveal an association between the \textit{IL-16} rs4778889 polymorphism and heightened risk of RCC.

\textbf{Key words:} \textit{IL-16}; Polymorphism; Renal cell cancer