Variations in the PDCD6 gene are associated with increased uterine leiomyoma risk in the Chinese.

Programmed cell death 6 (PDCD6) participates in T cell receptor, Fas, and glucocorticoid-induced programmed cell death. To test the relationship between PDCD6 polymorphisms and uterine leiomyomas (UL) risk, we investigated the association of two SNPs (rs4957014 and rs3756712) in PDCD6 with UL risk in a case-control study of 295 unrelated premenopausal UL patients and 436 healthy postmenopausal control subjects in a population of China. Genotypes of the two SNPs were determined with the use of PCR-restriction fragment length polymorphism assay. Significantly increased UL risks were found to be associated with the T allele of rs4957014 and the T allele of rs3756712 (p=0.016, odds ratio [OR]=1.325, 95% confidence intervals [CI]=1.053-1.668 for rs4957014; p<0.0001, OR=1.898, 95% CI=1.457-2.474 for rs3756712, respectively). Increased UL risks were associated with them in different genetic models. The present study provided evidence that rs4957014 and rs3756712 are associated with UL risk, the results indicated that genetic polymorphisms in PDCD6 may contribute to the development of UL.
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