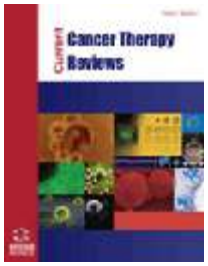

Association of a Genetic Variant in Chromosome 9p21 with Increased Risk of Developing Cervical Cancer

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Background: Cervical cancer is one of the most prevalent gynecologic cancers associated with high morbidity and mortality worldwide. There is mounting evidence indicating an association between the 9p21 locus genetic variants with susceptibility to various human malignancies. In this current study, we aimed to evaluate the potential relationship between the rs1333049 genetic variant in chromosome 9p21 and the risk of cervical carcinogenesis.

Methods: The possible correlation between rs1333049 polymorphism and susceptibility to cervical cancer was investigated in 221 patients with or without cancer. DNAs were isolated and genotyped using a TaqMan-based real-time RT-PCR method.

Results: The rs1333049 genetic variant was found to be correlated with an elevated risk of cervical neoplasia using recessive and additive genetic models ($p < 0.001$).

Conclusion: Our findings indicated that the CDKN2A/B genetic variant (rs1333049) was significantly associated with an elevated risk of cancer, suggesting its potential as a novel predictive marker for cervical carcinogenesis.

Keywords: 9p21; Cervical cancer; genetic variant; gynecologic cancers; human malignancies; rs1333049

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