



### -2578 A>C Polymorphism in the Vascular Endothelial Growth Factor Gene and the Risk of Endometriosis in an Iranian Population

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# Background:

Endometriosis is one of the most common benign gynecological conditions characterized by endometrial tissue outside the uterus. Several studies have related genetic polymorphisms as a factor that contributes to the development of endometriosis. Whereas the implantation of endometrial cells requires neovascularization, which considered an important phenomenon for the implantation of endometrial cells in ectopic sites; thus growth and other angiogenic factors such as the VEGF and EGFR could be related to the development of endometriosis. We screened women with endometriosis for -2578A/C polymorphism, whether is associated with the risk of endometriosis in Iranian people.

#### Material and Methods:

We investigated 84 patients with histopathologically or laparatomy confirmed endometriosis and 84 control group women without surgically evidence of endometriosis. Genomic DNA was extracted by salting out method. We genotyped -2578 A>C VEGF SNP in endometriosis case and non-endometriosis women by using PCR-RFLP. Results were confirmed by sequencing analysis.

#### **Results:**

While the -2578 VEGF genotype frequencies in endometriosis group were 18% A/A, 60% A/C and %22 C/C, they were 13% A/A, 60% A/C and %27 C/C in the control group. This finding between the case and control groups did not demonstrate any significant difference.

# Conclusion:

Our data do not provide any evidence supporting an association between -2578 VEGF polymorphism and endometriosis susceptibility so it cannot be a useful marker of endometriosis risk in our population. **Key word**: Endometriosis, VEGF, polymorphism, Iranian women