

Original Paper

Association of C/T polymorphism in 3'UTR of E-cadherin gene with ovarian cancer risk

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Abstract

Background and Objective: Ovarian cancer is the second most common gynecological malignancy. One of the most important genes in Wnt signaling pathway is E-cadherin (CDH1), which is involved in epithelial cell-cell interaction and plays an important role in the establishment and maintenance of intercellular adhesion, cell polarity and tissue architecture. E-cadherin codes a group of connector proteins which caused to intercellular adhesion. It has an important role in adhesion of blastomere and ability to bind fetal tissues. Nucleotide change in the coding region of this gene may lead to develop ovarian cancer. This study was conducted to evaluate the association of +54C/T (Rs1801026) 3 UTR of E-cadherin gene polymorphism with ovarian cancer risk.

Methods: This case-control study was done on 100 tissue samples of patients with ovarian cancer as cases and 100 age-matched healthy women as control in Imam Khomeini Hospital, Tehran, Iran. The E-cadherin gene polymorphism was determined by using the PCR-RFLP method.

Results: There was no association between CT (95% CI: 0.81-4.31; OR=1.87; P<0.14) and TT (95% CI: 0.73-2.38; OR=1.44; P<0.29) genotypes and ovarian cancer. No association was found between genotypes with grade and stage of cancer.

Conclusion: There is no correlation between +54C/T (Rs1801026) 3 UTR of E-cadherin gene polymorphism with ovarian cancer.

Keywords: Ovarian cancer, E-cadherin gene, Polymorphism, PCR

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Received 6 Dec 2014

Revised 5 Jan 2015

Accepted 11 Jan 2015