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# P312. Expression of vascular endothelial growth factor receptors in endometrial carcinoma

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Context:
Endometrial cancer is one of the most common gynecological malignancies worldwide and its prevalence is increasing. Most endometrial cancers are sporadic but 2 – 5% are familial. Angiogenesis plays a key role in the progression of various tumors, including endometrial carcinoma.
The expression of various angiogenic factors and their receptors have therefore been studied and found to be expressed in a wide variety of tumors. However, studies testing their expression in endometrial cancers have shown conflicting data.
Objective:
The aim of this study was to assess the expression of Vascular Endothelial Growth Factor Receptors (VEGFR) type 2 and 3 in endometrial carcinoma.
Patients and methods:
The present study was carried out on 35 patients presenting with endometrial cancer. Another group of 35 matched age endometrial hyperplasia patients served as control.
Tissue samples from both groups were collected to assess the expression of vascular endothelial growth factor receptors 2 and 3 genes by real time polymerase chain reaction (RT-PCR).
Results:
Relative VEGFR 2 gene quantitation ranged from 0.01 to 2.48 with mean of 0.40 ± 0.57, while for VEGFR 3 gene, it ranged between 0.01 to 3.39 with mean of 0.30 ± 0.69 in endometrial carcinoma patients. There was no significant difference in the rates of VEGFR 2 & 3 expression between controls and cases. Significant positive correlation was evident between relative VEGFR2 and VEGFR3 genes ($p < 0.001$).
Correlation between VEGFR 2 & 3 with the clinicopathological characteristics of the tumors had no significant relationship.
Conclusion:
The expression of VEGFR 2 and VEGFR 3 is not increased in endometrial carcinoma in comparison with endometrial hyperplasia. VEGFR2 and VEGFR3 expression doesn't correlate with histological type, grade, stage or lymphovascular invasion in endometrial carcinoma cases.
Key words:
Vascular endothelial growth factors; Endometrial carcinoma; Endometrial hyperplasia; Polymerase chain reaction; Angiogenesis.

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