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### Study of VCAM-1 expression in normal and tumoral tissues in patients with colorectal cancer

**Aim:** Colorectal cancer is one of the most commonly diagnosed cancers in the world. Cell adhesion molecules play an important role in the progression of various cancers. It has been shown that the high level expression of some Cell adhesion molecule could be a new diagnostic factor for several cancers. Vascular cell adhesion molecule-1 (VCAM-1) is a cell surface glycoprotein that is expressed in the endothelium activated by cytokine. Generally VCAM-1 expression level is very poor in normal adult tissue endothelial cells. According to the above explanation, this study was conducted to investigate the VCAM-1 expression in tumoral tissues and adjacent normal tissues in colorectal cancer patients to its relation with clinicopathological features patients.

**Methods:** In this study, 60 tumoral tissues and 39 adjacent normal tumor tissues was an evaluated by using Reverse transcription-polymerase chain reaction (RT-PCR) technique, as well as software SPSS and chi-square test for association of this gene with clinicopathologic features patients were used and  $P > 0.005$  was considered significant.

**Results:** VCAM-1 gene in tumor samples (100%) and 33% of the adjacent normal samples was expressed. A significant correlation was found between VCAM-1 expression level and the stage, lymph nodes involvement, tumor progression factor of cancer and sex. VCAM-1 expression not observed in tumor samples with stage 0. No association was seen between VCAM-1 expression and other clinical features such as age ( $P < 0.103$ ), size of the tumor ( $P < 0.419$ ). As well as statistically significant association between VCAM-1 expression with metastasis was not observed in these patients ( $P > 0.276$ ).

**Conclusion:** According to data obtained and VCAM-1 expression relationship with tumor progression factor, lymph node involvement and the stage of the cancer, VCAM-1 expression can be in *angiogenesis* and proliferation of cancer cells in patients with CRC play important role, probably be considered as a prognostic biomarker for colorectal cancer.

### Biography

Rezvan Mirzaee is an Associate Professor of Colorectal Surgery. She has completed her Graduation from Iran University of Medical Sciences. She is a Member of colorectal research center. She has 20 publications. She is specialized in cancer and pelvic floor disorders.

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