عنوان مقاله:

Long Non-coding RNA ZEB1-AS1 Promotes Tumorigenesis and Metastasis in Colorectal Cancer

محل انتشار:

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خلاصه مقاله:

Emerging evidence implicates that a large fraction of human genome was transcribed but the transcripts known as long non coding RNA are not translated into proteins. They are contributing in different cellular processes, including cellular proliferation and apoptosis. LncRNAs were found to play critical roles in many diseases and act as key regulators in malignancies. In this study, we investigated the expression and clinical significance of ZEB1-AS1 in colorectal cancer. In the present study, 64 samples including 32 samples of colorectal tumor and 32 matched tumor marginal samples were obtained from Iran National Tumor Bank (Tehran, Iran). RNA extraction was performed with TRIzol reagent and cDNA was synthesized using MMULV reverse transcriptase enzyme. The expression of ZEB1-AS1 in tumors and marginal tissues was determined by using real time PCR. We found that the expression level of ZEB1-AS1 was much higher in tumor tissues compared to marginal samples. Moreover, in tumor group, ZEB1-AS1 expression was significantly upregulated in high-grade tumors in comparison to low-grade ones. Additionally, we observed the expression of ZEB1-AS1 was much higher in lymph node metastatic tumors compared to non-lymph node metastatic ones. Our data showed that the ZEB1-AS1 was dramatically overexpressed in colorectal cancer tissues. The results of the study revealed that the expression of ZEB1-AS1 is correlated with tumor stage, lymph node metastasis and vascular invasion. Based on our findings, we suggested that ZEB1-AS1 might be considered as a tumor marker with potential diagnostic, prognostic and therapeutic value for aggressive and metastatic colorectal cancers.

کلمات کلیدی:

ZEB1-AS1, Metastasis, Tumor marker, Colorectal cancer

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