

عنوان مقاله:

ZFX Overexpression in Breast Cancer Positively Correlates with Metastasis

محل انتشار:

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خلاصه مقاله:

Background: As the third most frequent cause of cancer death, breast cancer is a common disease worldwide. Most of the patients are being diagnosed in the stage that conventional treatments are not effective, and invasion and metastases lead to death. Therefore, identification of novel molecular markers to improve early diagnosis, prognosis and treatment of the breast cancer is a necessity. Zinc finger X-linked (ZFX) gene is a member of ZFY family, which they upregulation has been demonstrated in several types of cancer. The aim of this study was to assess ZFX gene expression in Formalin-fixed, paraffin-embedded (FFPE) tissues of the breast cancer invasive ductal carcinoma and to investigate its correlation with clinicopathological parameters. Materials and Methods: A total of 52 tumor and non-tumor breast specimens were evaluated for ZFX gene expression using quantitative real-time RT-PCR. Total RNA extraction was performed using RNeasy FFPE kit (Qiagen). complementary DNA (cDNA) synthesis was performed using PrimeScript-RT Master Mix (Takara). The PCR mixture containing SYBR® Premix Ex Taq™ II (Takara Bio Inc., Otsu, Japan), was run on the Rotor-gene 3000 (Qiagen, Hilden, Germany) Results: The ZFX expression increased significantly in breast tumor tissues compared with non-tumor breast tissues. We further showed that there was a positive correlation between the ZFX gene expression level and lymphatic invasion. Conclusion: ZFX might be used as a potential biomarker to monitor breast carcinoma progression. Further studies to determine the mechanism of action of ZFX is needed to unravel the role of this gene in breast cancer pathogenesis.

کلمات کلیدی:

Breast cancer, Gene expression, ZFX, FFPE

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