عنوان مقاله:

MicroRNAs (miRNAs) in breast cancer management

محل انتشار:

یازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Introduction: Breast cancer is the leading cause of death among women worldwide. The heterogeneous feature of the disease has directed the breast cancer management strategies into finding more specific personalized biomarkers. MicroRNAs, have recently been proposed as auspicious biomarkers of breast cancer especially as they are stable and easily detectable in body fluids e.g. plasma, serum and saliva. These small non-coding RNAs are involved in gene expression regulation with their consequent role in cell proliferation, differentiation and apoptosis. However, deregulation of miRNAs has been characterized in various types of cancers including breast cancer. In this review we will discuss miRNAs potentials in the management of breast cancer based on the latest studies in this field. MiRNAs can be categorized as oncogenes (oncomirs) or tumor suppressor genes which their involvement in oncogenesis, metastasis and resistance to therapies has been proved in various studies. For instance miR-10b, miR-21, miR155 and miR-520c are characterized as major oncomirs in breast cancer while MiR-125b is one of the most downregulated miRNAs in breast cancer. Moreover, recent studies have introduced miRNAs as an emerging group of potential diagnostic, predictive and prognostic biomarkers in breast cancer patients. Additionally, microRNA expression profiling has been used as a useful instrument to describe different subtypes of the breast cancer except for luminal B subtype. Conclusion: regarding the obvious correlation of miRNAs deregulation and breast cancer complications as well as the growing number of newly characterized miRNAs, it is necessary to validate these findings .in several powerful clinical studies

کلمات کلیدی:

MiRNA, Breast cancer, Oncogene