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Review Article

Exosomal miRNAs and breast cancer: a complex theranostics interlink with clinical significance

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Abstract

Breast cancer (BC) remains the most challenging global health crisis of the current decade, impacting a large population of females annually. In the field of cancer research, the discovery of extracellular vesicles (EVs), specifically exosomes (a subpopulation of EVs), has marked a significant milestone. In general, exosomes are released from all active cells but tumour cell-derived exosomes (TDXs) have a great impact (TDXs miRNAs, proteins, lipid molecules) on cancer development and progression. TDXs regulate multiple events in breast cancer such as tumour microenvironment remodelling,

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EXOSOME-BASED DC TREATMENT IS A SIGN OF THE TRANSFORMING ERA OF LIQUID BIOPSY, IT IS ALSO a promising therapeutic tool for breast cancer. Exosome research goes to closer precision oncology via a single exosome profiling approach. Our hope is that this review will serve as motivation for researchers to explore the field of exosomes and develop an efficient, and affordable theranostics approach for breast cancer.

Q Keywords: [Breast cancer](#) [exosome](#) [metastasis](#) [biomarker](#) [therapeutic](#)

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Ethical approval

There are no human or animal studies in this paper.

Consent form

Not applicable.

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No potential conflict of interest was reported by the author(s).

Data availability statement

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