عنوان مقاله:

Natural and herbal compounds targeting breast cancer, a review based on cancer stem cells

محل انتشار:

مجله علوم پایه پزشکی ایران, دوره 23, شماره 8 (سال: 1399)

تعداد صفحات اصل مقاله: 14

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خلاصه مقاله:

Cancer stem cells (CSCs) are known as the major reason for therapy resistance. Recently, natural herbal compounds are suggested to have a significant role in inhibiting the breast cancer stem cells (BCSCs). The aim of this study was to explore the effective natural herbal compounds against BCSCs. This review article was designed based on the BCSCs, mechanisms of therapy resistance and natural herbal compounds effective to inhibit their activity. Therefore, Science direct, PubMed and Scopus databases were explored and related original articles were investigated from 2010 to 2019. BCSCs use different mechanisms including special membrane transporters, anti-apoptotic, pro-survival, and self-renewal- related signaling pathways. Natural herbal compounds could disturb these mechanisms, therefore may inhibit or eradicate the BCSCs. Studies show that a broad range of plants, either as a food or medicine, contain anti-cancer agents that phenolic components and their different derivatives share a large quantity. Natural herbal compounds play a pivotal role in the eradication of BCSCs, through the inhibition of biological activities and induction .of apoptosis. Although it is necessary to conduct more clinical investigation

كلمات كليدى:

Breast Neoplasm, Neoplasm, Phenolic compounds, Stem cells, Therapy resistance

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