
A comprehensive review on medicinal plants for potential therapeutic applications in breast cancer and sickle cell anemia in women

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Abstract

This review provides insights into the therapeutic advantage of medicinal plants in the management of breast cancer and Sickle cell anemia (SCA) when they occur in women. It underscores the special difficulties faced by women who have both diseases, and the importance of multidisciplinary care among healthcare professionals. The review addresses the positive impact on phytochemicals at work against breast cancer found in curcumin, resveratrol, and epigallocatechin gallate, as well as the growing benefits of phytoestrogens and the selective behaviors of the ligand activity towards estrogen receptors. Moreover, it looks at the traditional and dietary approaches for SCA, paying attention to *Nelumbo nucifera* and *Eichhornia crassipes*, which have anti-sickling effects. The review highlights the role of nutrition, especially vitamin B12, in enhancing the reproductive health of women with SCA. There is a review gap in clinical validation and safety information regarding these plants, especially for pregnant women, which is concerning. Proposed future research focuses on comprehensive clinical trials, safety and efficacy evaluations of herbal blends, and the unification of conventional and alternative medicine for treating breast cancer and SCA in women.

Key words: Breast cancer, medicinal plants and therapies, pharmacology, sickle cell anemia
