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Implications of Antidepressants Use in Breast Cancer: A Brief Review

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ABSTRACT

We review herein the available data regarding the potential relationship between antidepressants and breast cancer. According to some studies, the biological rationale leading correlation among antidepressants and mammary carcinogenesis is represented by the increase in prolactin levels and by the promotion of cell proliferation. However, these studies seem to be spoiled by an unsatisfactory statistical design and by the lack of a good control for confounding elements. Thus, experimental and clinical data remain controversial, even though recent studies tend to exclude a causative link between depressive disorders and breast malignancies. We have also investigated whether the concomitant use of selective serotonin re-uptake inhibitors and
hormonal therapy influences cancer-related risk of death in ER-positive breast cancer patients treated with adjuvant anti-estrogen therapy. Even here an unequivocal consensus seems to be lacking, most of the studies suggest that women in hormonal adjuvant therapy experiencing depression can be safely treated with SSRI, without a negative impact on breast cancer prognosis. Whether depression and antidepressant have a role in breast tumour development, a reverse correlation is undeniably present. We reviewed the Literature to assess if there is a relationship between antidepressants and breast cancer risk and if antidepressants use may affect breast cancer patients' prognosis. We also provide a thorough list of potential pharmacological interactions between the molecules currently used for breast cancer treatment and antidepressants.

Key words: breast cancer, depression, antidepressants, drugs interactions