

Melatonin May Helpful In Treating Or Reducing Breast Cancer!

Sanchez-Barcelo EJ, Cos S, Mediavilla D, Martinez-Campa C, Gonzalez A, Alonso-Gonzalez C. *Melatonin-estrogen interactions in breast cancer* J Pineal Res. 2005 May;38(4):217-22.

Department of Physiology and Pharmacology, School of Medicine,
University of Cantabria, Santander, Spain.

In this article, we review the experimental data supporting an oncostatic role of melatonin on hormone-dependent mammary tumors. Beginning with the evidence on the role of estrogens in breast cancer etiology and mammary tumor growth, we summarize the actual therapeutic strategies with estrogens as a target. Additionally, we demonstrate that melatonin fulfills all the requirements to be considered as an antiestrogenic drug which shares properties with drugs of the two main pharmacological groups of substances which interact with the estrogen-signaling pathways such as: (i) drugs that act through the estrogen receptor interfering with the effects of endogenous estrogens; and (ii) drugs that interfere with the synthesis of estrogens by inhibiting the enzymes controlling the interconversion from their androgenic precursors. Furthermore, melatonin decreases circulating levels of estradiol. These three antiestrogenic mechanisms suggest that melatonin may have an important role in the prevention and treatment of hormone-dependent mammary cancer.