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Endogenous sex steroid hormone levels in women with breast malignancy

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Hormones play a critical role in breast carcinogenesis. In the recent past there has been extensive focus on the role of estrogen as a growth regulator of normal breast tissue and breast cancer. However, progesterone is also a potent breast mitogen. Testosterone or its metabolites might play a role in breast cancer etiology by altering the availability of estrogens or by acting as an estrogen precursor. 30 cases of newly diagnosed breast cancer cases were selected of which 12 were premenopausal and 18 were postmenopausal women. Most of the cases were in the age group of 41-50 years (47%), followed by 31-40 years. 79% of the patients were presented with complaint of breast lump. Upper outer quadrant was most commonly involved followed by the upper inner quadrant. 73% of the cases were of infiltrating ductal carcinoma. Other cases included were of infiltrating lobular carcinoma, medullary carcinoma, mucinous carcinoma, apocrine carcinoma, metaplastic carcinoma, spindle cell sarcoma and malignant phyllodes. Serum endogenous sex steroid hormone levels (estradiol, progesterone and testosterone) of the 30 women with breast cancer and 40 healthy controls were analyzed using the *enzyme linked immuno fluorescence assay* (ELFA) method. Serum levels of estradiol were found to be raised in the premenopausal and postmenopausal phases with statistically significant association of $p < 0.05$. Serum values of progesterone and testosterone were statistically insignificant with $p > 0.05$. Although comparable data was found in other Western studies, we do not have many studies done on the endogenous sex hormone levels in breast cancer patients in our country and the surrounding areas. Concentration of serum estradiol may predict the risk for breast malignancy and hence may help the clinicians to decide further management to decrease breast cancer risk.

Biography

Anne Wilkinson has completed her MD in Pathology from Christian Medical College and Hospital, Ludhiana, Punjab. She is currently working as an Associate Professor in Pathology at NKP Salve Institute of Medical Sciences and Research Centre, Nagpur, India. She has been teaching Pathology to Undergraduate students and is also a guide for Post-graduate students. She has more than 50 publications to her credit. She has been actively involved in organizing CME's and conferences and is the Past President of Vidarbha Association of Pathologists and Microbiologists in 2015-16.

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