

**EVALUATION OF SOME TRACE ELEMENTS IN SERUM AND URINE  
FROM FEMALES BREAST CANCER (PRE AND POST MENOPAUSE)  
PATIENTS IN MISSAN CITY, IRAQ**

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**ABSTRACT**

To investigate the concentration and role of certain important elements in 55 patients women diagnosis with breast cancer. The patient groups which divided into 2 groups: (30 patients with premenopausal) and (25 patients with postmenopausal) aged (20-60) years have been examined and formed the initial study group trace metals are essential to normal human homeostasis. When present in an abnormal expression, they contribute in many pathological processes. Our aim was to investigate the serum and urine concentration of some important elements Copper (Cu). Zinc (Zn). Selenium (Se). Aluminum (Al). Chromium (Cr). Lead (Ld). and Magnesium (Mg) of the patients with breast cancer, and (50) healthy control women it is found that there were statistically increased significant of ( Copper, Lead. and Aluminum) in postmenopausal patients as compared with controls and pre-menopausal patients with  $p \leq 0.001$ . While the serum levels of ( Zinc. Selenium. Chromium and Magnesium) in pre-menopause patients was increased significantly different from control and postmenopausal patients. There was no significant difference in the serum level of (Zinc. Selenium. Lead and Magnesium) between the groups of breast cancer patients. The urinary minerals that exhibited the levels of (Cu (in pre). Zinc (in post), Selenium (in pre), Lead (in pre and post). Chromium (in post) and Aluminum (in pre – post), a significant difference ( increased) from controls

**KEYWORDS:** Breast Cancer, Pre and Postmenopausal Women, Trace Metals, Urine from Breast Cancer