

## **Effect of Citalopram and Aspirin on Hot Flashes and Depression in Premenopausal Women with Breast Cancer: a Randomized Controlled Trial**

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### **Abstract**

**Introduction:** Among women with breast cancer in Iran, Up to 50 per cent of patients aged less than 50 years. More than 70 per cent of these women experienced an earlier menopause after chemotherapy. Our main aim of this study was effect of citalopram together with aspirin on CIA symptoms in premenopausal women.

**Methods:** In this randomized clinical trial study we allocated individuals randomly to treatment (Citalopram together with Aspirin) and control (placebo together with Aspirin) groups, 28 and 32 patients in the treatment and control group respectively. We selected patients who referred to Breast Cancer Research Center and Shohada Esfahan hospital. To assess functional, practical, emotional, social and hot flashes symptom we used FACR-G questionnaire. As well as we employed Student's T-test and Wilcoxon signed-rank test to evaluate the effect of treatment on these patients.

**Results:** The mean of age were  $45.03 \pm 5.1$  and  $44.7 \pm 5.3$  in treatment and control groups respectively. Exponentially reduction of the menopausal hot flashes symptom was statistically significant in both groups ( $p$ -value $<0.0001$ ). In this study there is no significant difference in terms of practical and social parameters ( $p$ -value $\geq 0.05$ ). Increase of emotional states ( $p$ -value=0.2) and physical health ( $p$ -value=0.04) among treatment group were significant after using citalopram and aspirin.

**Conclusion:** Our result demonstrated that using citalopram together with aspirin in breast cancer patients with chemical menopause markedly decrease the hot flash levels causing chemotherapy. Also we saw the positive effects of this treatment on emotional and physical health. Thus, our treatment suggest to medical specialist to improve the hot flash symptom.

**Keywords:** Premenopausal, Chemotherapy, Hot Flash Symptom, Breast Cancer.