Assessment of the association of infertility treatment with breast cancer risk in a tertiary referral hospital

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ABSTRACT

Introduction: Infertility drugs may elevate oestrogen levels in women, potentially increasing their risk of developing breast cancer. However, the correlation between exposure to infertility drugs and breast cancer risk remains inconclusive. **Aims:** This preliminary study aims to assess whether there is an association between exposure to infertility treatment and the risk of developing breast cancer. **Materials and Methods:** This retrospective study consisted of women aged a minimum of 20 years who attended the breast clinic in our centre. Participants were categorized into four groups: women with breast cancer who had undergone infertility treatment (CI), women with breast cancer who had no infertility treatment (CNI), women without breast cancer who had undergone infertility treatment (NCI) and women without breast cancer who had no infertility treatment (NCNI). Demographic data, obstetric and gynaecological history and details of infertility treatment were recorded. **Results:** A total of 104 subjects were recruited; 65.3% Malays, 26.9% Chinese, 5.7% Indians & 1.9% Foreigners. Among them, 12.8% were CI, 87.2% were CNI, while 6.2% and 93.8% were NCI and NCNI respectively. Chi-square analysis with Continuity Correction showed no significant association between infertility treatment exposure and the diagnosis of breast cancer (p=0.418). There was also no association found between breast cancer and ethnicity, education level, marital status, breast-feeding, contraceptive use and family history of breast cancer. **Conclusion:** Based on this preliminary analysis, there appears to be no significant correlation between exposure to infertility treatment and breast cancer risk among women in our study population. **Limitations:** This study is limited by a small sample size, potential recall bias and incomplete data on the complexity and types of infertility treatment regimens that these women had undergone.

Keywords: Infertility, risk, developing, breast, cancer