

## Updated Key Determinants of Breast Cancer Risk in Bahrain: A Comprehensive Analysis

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### ABSTRACT

Breast cancer is the most common cancer, and the second leading cause of death in women globally. In Bahrain, female age-standardized cancer incidence is the third highest (137.4 per 100,000 people) in the Arabian Gulf. The 3 common cancers in Bahraini females are breast (58.5 per 100,000 people), followed by colorectal (12.4 per 100,000 people), and uterine (8.2 per 100,000 people) cancers. Most cancers are related to lifestyle, genetic predispositions, and environmental factors. Breast cancer awareness campaigns are crucial for early detection and better outcomes. Lifestyle modifications also play an important role in cancer prevention. Advanced-stage diagnosis is still seen, so more community awareness efforts are needed. There are still few studies published on the risk factors of breast cancer in Bahrain. To assess the primary risk factors of breast cancer in Bahrain. All patients were operated on by 2 senior consultant surgeons in Bahrain. Design: Prospectively collected patients' data and analyzed using SPSS. Two hundred twenty-six consecutive breast cancer patients in the period from August 1999 to August 2020. Risk factors studied included: age at diagnosis, early menarche age (11 years and below), and late menopause age (50 years and above). Other factors included parity or nulliparity, late age at first full-term pregnancy (more than 30 yrs.), history of lactation, prolonged history of uninterrupted use of Oral Contraceptive Pills (OCP) (more than 5 years), prolonged history of uninterrupted use of Hormonal Replacement Therapy (HRT) (more than 2 years), past personal history of breast, ovarian or other cancers, family history of breast, ovarian or other cancers, presence of Diabetes, and weight of patients at presentation. All patients were females. The age of patients at diagnosis was categorized into 2 categories. The first category result was as follows: less than 35 years old were 21 patients (9.3%), 35-45 years were 61 patients (27%), 46-55 years were 84 patients (37.2%), and more than 55 years old were 60 patients (26.5%). The second category was as follows: 20 to 29 years were 4 patients (1.8%), 30 to 39 years were 38 patients (16.8%), 40 to 49 years were 77 patients (34.1%), and 50 years and above were 107 patients (47.3%). Early menarche (11 years and below) was observed in 40 patients (20.2%), and those who attained menopause were 97 patients (43.1%). Forty-seven patients were Nulliparous (20.8%). One hundred fifty-four patients (81.1%) had their first pregnancy at less than 30 years old. Lactation history was negative in 62 patients (27.6%). Fifty-four patients (24.5%) used OCP for long periods. Six patients (2.7%) took HRT. Five patients (2.2%) had a positive personal history of malignancy (Breast, ovaries & others). Seventy-eight patients (34.8%) had a positive family history of cancer. Thirty patients (18.3%) had Diabetes, and the weight of the patients was at or above the standard adult weight (70 Kg) in one hundred twenty-two (58.4%). The studied group showed that the age at presentation (below or equal to 55 years) was significantly higher (73.5%) than that of patients above 55 years (26.5%). The Positive Family history of cancer was also considerably high (34.8%). Although other factors were positive in this group of patients, they were not significantly similar to the percentage worldwide.

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