Breast Cancer Risk Assessment among Bahraini Women

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Objective: To estimate breast cancer risk among Bahraini women aged 35 years and older attending primary healthcare centers.

Setting: Primary healthcare centers.

Design: Cross sectional descriptive study.

Method: One hundred seventy-two women aged 35 years and older were assessed for the risk of invasive breast cancer risk using the modified Gail model. The study was performed from 1 February to 31 May 2005. A questionnaire was used to collect information on five years and lifetime breast cancer risks.

Result: Four percent of the women had a high risk (≥1.76%) of breast cancer making them eligible for breast cancer health prevention strategies. A mean of 5 years risk (0.7% ± 0.37) and a mean of lifetime risk (9.3% ± 3.0) were computed.

Conclusion: Four percent of the women aged ≥35 years had high breast cancer risk based on the Gail model which makes these women eligible for preventive strategies and close follow-up by specialists in the field.


A number of statistical models had emerged in order to predict the risk of cancer occurrence. Researchers had published during the late 1980s and early 1990s models for breast cancer absolute risk prediction. Those models can help in population cancer control strategies and identifying individuals at high risk.

Gail M et al used the data from Breast Cancer Detection Demonstration Project (BCDDP) to develop a model for the estimation of breast cancer risk among women in a program of annual mammographic screening. The model estimates the absolute risk that a woman will develop invasive ductal carcinoma in situ [DCIS] or lobular carcinoma in situ [LCIS] over a defined age interval. Statisticians of the National Surgical Adjuvant Breast and Bowel Project (NSABP) modified the Gail model to project the absolute risk of developing only invasive breast cancer. The modified Gail model calculates the 5 years and lifetime breast cancer

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