Consumption of deep fried foods intake and breast cancer risk among women in Karachi, Pakistan - A matched case control study

Uzma Shamsi, Shaista Khan, Iqbal Azam and Romaina Iqbal
Aga Khan University, Pakistan

Introduction: Diet could be a major modifiable risk factor for breast cancer prevention. The objective of this study was to assess the association between different food items and breast cancer among women attending two tertiary care hospitals in Karachi, Pakistan.

Methods: 294 cases of histologically confirmed breast cancer and 580 controls matched according to age (+5yrs) and hospitals were interviewed. A detailed quantitative food-frequency questionnaire was used to assess the usual intake of 36 food items. Conditional logistic regression analysis was conducted to assess the association between tertiles of intake of each food item and breast cancer. Mean intakes of the different food items per day were calculated in cases and controls. Crude and adjusted matched odds ratios (ORs) with 95% confidence intervals using conditional logistic regression are reported. SPSS for windows (version 19) was used to analyze data.

Results: A positive and graded association was observed between the intake of each of the following food items and breast cancer: Halwa puri, (OR1.71, CI: 1.16-2.52), fried potatoes (OR 1.85, CI: 1.21, 2.81), consumption of fish (adjusted odds ratio (OR) 1.66, 95% confidence interval (CI): 1.11, 2.49). Conversely we observed an inverse association between breast cancer and the intake of green tea (OR 0.17, CI: 0.03-0.88) and milk dessert (OR 0.54; CI: 0.35, 0.82), with higher levels being protective.

Conclusion: Frequent consumption of deep fried food items like halwa puri, fried potatoes (French fries) were associated with an increased risk of breast cancer. Our study indicates the unexpected association of breast cancer risk with use of fish which may also be explained by its usual consumption in fried form in our setting. However, due to current water pollution, fish contamination with potential carcinogens needs further research.

Biography
Uzma Shamsi completed her MD from Khyber Medical University Peshawar Pakistan and Masters in Epidemiology and Biostatistics from Aga Khan University Karachi Pakistan. She is a forward-thinking educator, researcher and doctor with an extensive background in research, teaching and clinical patient care. During her professional career at Aga Khan University that spans many years, she has received various awards, honors and scholarships. Currently, she is a PhD candidate in Medicine at the University of Adelaide Australia. Her main research area of interest is breast cancer and lifestyle risk factors.

uzma.shamsi@adelaide.edu.au

Notes: