

Centrally Located Breast Cancer Is More Aggressive in Bahraini Patients

Hamdi Al Shenawi, ACS, FRCSI* Rami Yaghan, FRSCI, JBSO** Noor Al Shenawi*** Amer Almarabheh, PhD**** Lamees Yaghan, MBBS***** Fatima Al Shenawi*** Suhair AlSaad, ACS, FRCSI*

ABSTRACT

Introduction: Breast cancer behaves differently according to the primary tumor location. Medially located breast tumors were thought to have a worse prognosis than laterally located breast tumors. Studies showed that central tumors tend to present at a relatively more advanced stage with more features of a locally advanced disease. Lateral, medial, and central breast tumors are not well studied in Bahrain and worldwide; therefore, we aimed to clarify the incidence & clinicopathological characteristics of each and to explore the impact of primary tumor location on the prognosis.

Materials and Methods: This is a cross-sectional, retrospective review involving 233 consecutive breast cancer Bahraini female patients that were divided into 3 groups in relation to primary tumor location: lateral, medial, and central. Pertinent clinicopathological variables were analyzed in relation to the primary tumor localization in the breast.

Results: Lateral breast cancer patients (N=133, 57.1%), medial breast cancer patients (N=64, 27.5%), and central breast cancer patients (N=36, 15.4%). Chi-square test showed a significant association between central tumor location and tumor size (p-value=0.008), lymph node status (p-value=0.010), and tumor stage (p-value=<0.001).

Conclusion: This is the first study from Bahrain regarding the possible impact of primary tumor location on the outcome of breast cancer. Although the lateral breast tumors have the highest incidence, the central tumors were more likely to present with a locally advanced disease, larger than 5 cm tumor size, and axillary lymph node metastasis. They also tended to have a higher ratio of lymphovascular invasion and HER2 over expression. Multicenter meta-analysis is needed to evaluate the real impact of primary tumor location and internal mammary lymph node evaluation on the outcome of breast cancer.

Key words: Breast cancer, Lateral, Medial, Central, Bahrain, Size of tumor, Tumor stage

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* Department of Surgery
College of Medicine and Medical Sciences
Arabian Gulf University, Bahrain.
E-mail: hamdims@agu.edu.bh

** Department of Surgery
College of Medicine and Medical Sciences
Arabian Gulf University, Bahrain.
Department of Surgery and Urology
Faculty of Medicine
Jordan University of Science and Technology, Irbid, Jordan.

*** Undergraduate medical student
College of Medicine and Medical Sciences
Arabian Gulf University, Bahrain.

**** Department of Family and Community Medicine
College of Medicine and Medical Sciences
Arabian Gulf University, Bahrain.

***** Medical Skills & Simulation Center
Arabian Gulf University, Bahrain.