ORIGINAL ARTICLE

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Evaluation of Adjunctive Sonography Results in Screening of Women with Mammographically Dense Breasts for Early Diagnosis of Breast Cancer

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Abstract

Introduction: Dense breasts are considered as limitation for the sensitivity of mammography. This study evaluates the role of adjunctive breast ultrasound screening in women with dense mammograms.

Methods: A cross-sectional study was performed in Tabriz AL Zahra hospital during a year (1394-1395). Asymptomatic women who referred for screening which shows dense breasts (ACR III OR IV) underwent ultrasonography screening for breast cancer. Mammography and sonography assessment were performed and categorized based on as BIRADS CATEGORY system. The final results of mammography BIRADS CATEGORY and sonography BIRADS CATEGORY were compared.

Results: Three hundred and thirty women with mean age of 47.6 years were enrolled into the study. According to the report of mammography, 65, 161, 102 and 2 reports were categorized in BIRADS CATEGORY 0, 1, 2 and 4, respectively. The sonography reports were similar to mammography in BIRADS CATEGORY 1 and 2. Among 65 lesions with BIRADS CATEGORY 0, 10 were suspected as malignant with sonography. The biopsy of the suspicious lesions showed the malignancy in 30% of them.

Conclusion: This study reveals the values of sonography screening in detecting early stage of breast cancer in mammograms with BIRADS category 0 lesions in women with dense breasts. A larger long-term study is, however, needed to assess its feasibility and impact on breast cancer prognosis.

Keywords: Screening, Breast Cancer, Mammography, Sonography, BIRADS, ACR III, IV.