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12 . . .

(Mammography)

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가

가

(screening)

(diagnostic)

(3,4).

12-44%

가

(3).

(screening)

(diagnostic)

가

1.5-4

(1).

(1).

가

가

(1).

1

(2).

(= / +

가

. Warwick (5)

82.5%

가 92.8% 가

)
(threshold)

(1).

1

2

Poor Quality)

(Poor Positioning or

가

가 (Fig.

1).

(Fig.2)

(mediolateral) 가

(Fig. 3)

(Fig. 4).

가

가

가 가

(1).

(Visible in Retrospect)

가

(Fig. 5),

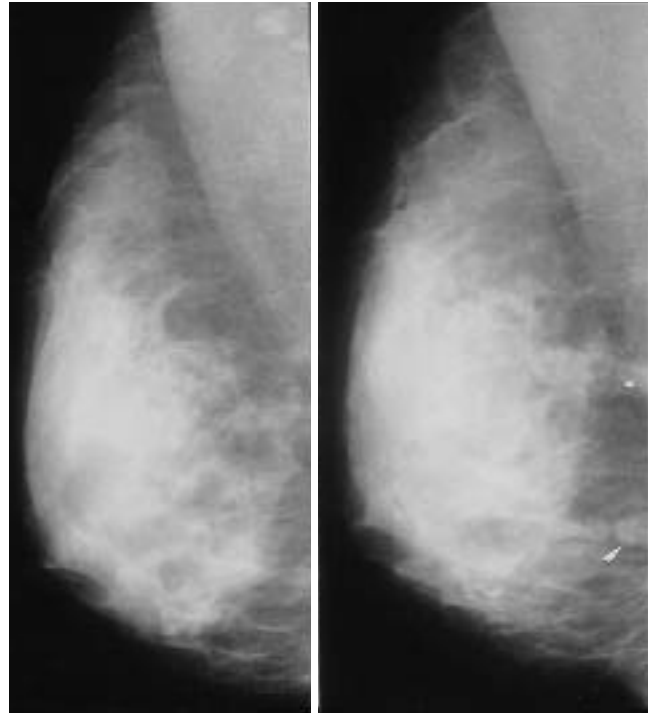


Fig.1. The left breast in a 47-year-old woman
Mediolateral oblique mammogram was not well positioned and 1cm nodular lesion at lower was interpreted as benign(left). Repeated mammogram obtained 7 days later (right) shows well positioned and the invasive ductal carcinoma is evident(arrow). Another benign nodule with calcification (arrow) is seen due to good positioning.

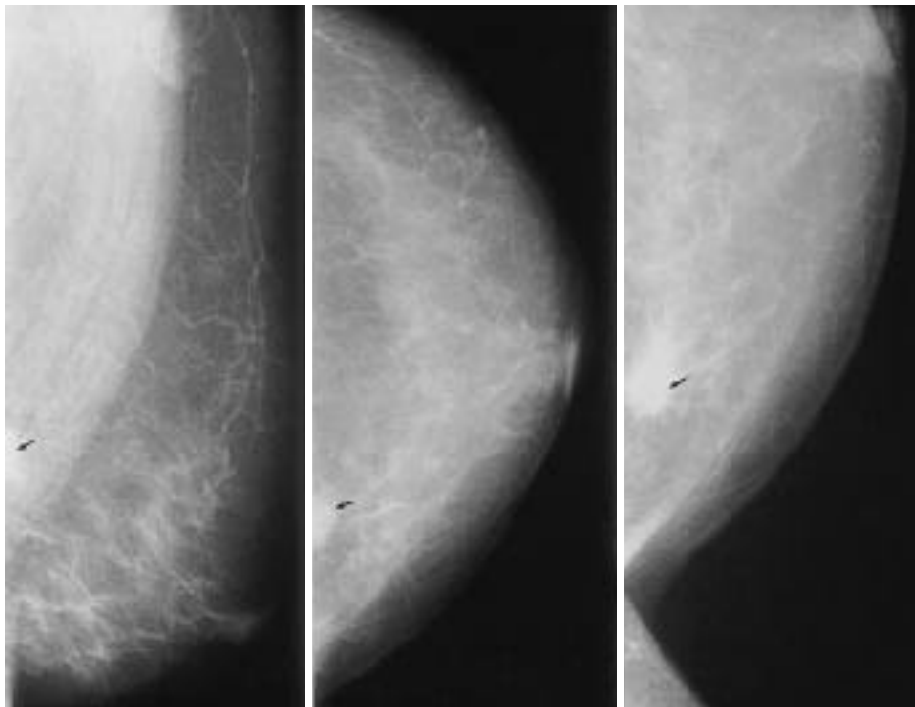


Fig. 2. The left breast in a 52-year-old woman with lump at left breast, 10 o'clock.
Mediolateral oblique (left) and cranio-caudal(middle) mammograms show faint increased opacity in posterior aspect(arrow). Valley view(right) clearly demonstrates spiculated mass(arrow). Diagnosis was tubular carcinoma.

(Fig.6)

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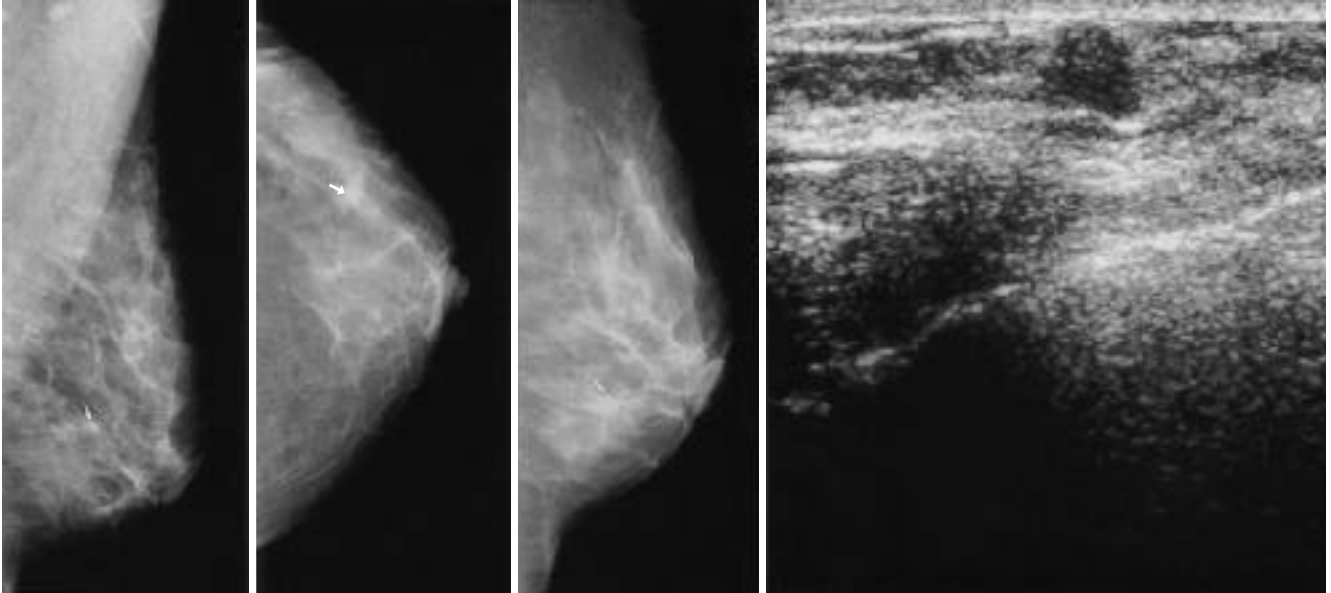
(6).

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A B
Fig. 3. The left breast in a 57-year-old woman with lump at left subareolar area.
A. Mediolateral oblique(left), craniocaudal(middle) and mediolateral(right) mammogram show focal asymmetric density (arrow).
B. Ultrasound demonstrate a 7mm sized mass at left lower outer portion of the breast. Diagnosis was tubular carcinoma.

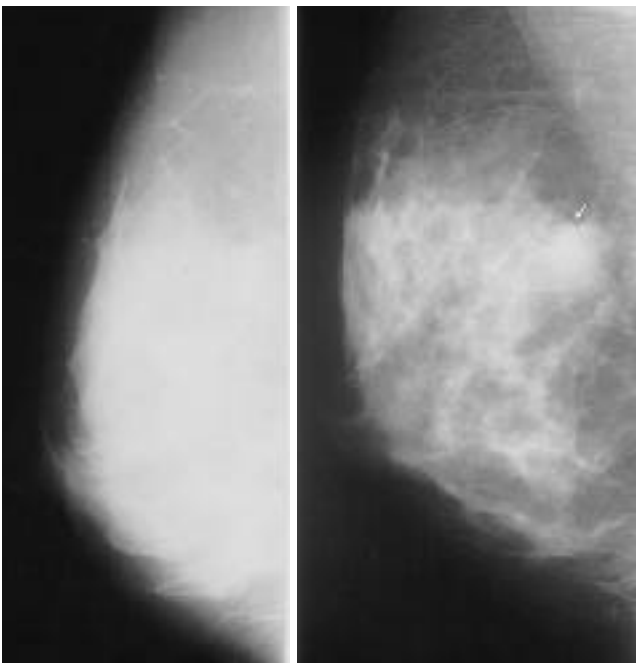


Fig. 4. The left breast in a 47-year-old woman
Underexposed mediolateral oblique mammogram depicts poor details of dense fibroglandular tissue(left). Properly exposed mediolateral oblique mammogram(right), 2 months later, shows ill-defined dense mass with obscured margin(arrow) that proved to be carcinoma.

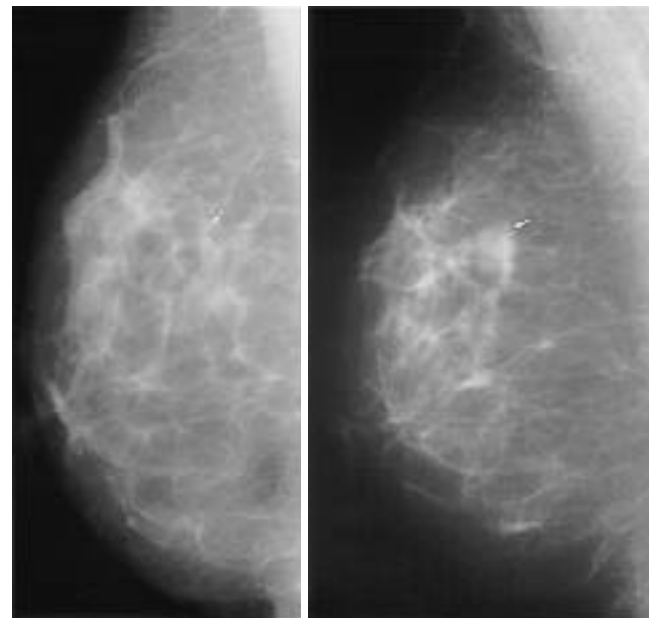


Fig. 5. The left breast in a 59-year-old woman
Mediolateral oblique mammograms of the same breast in 1996(left), 1998(right). An irregular opacity in upper central portion(arrow) is seen in 1998. It was proved to be a medullary carcinoma. It was suspicious asymmetric density (arrow) in 1996.

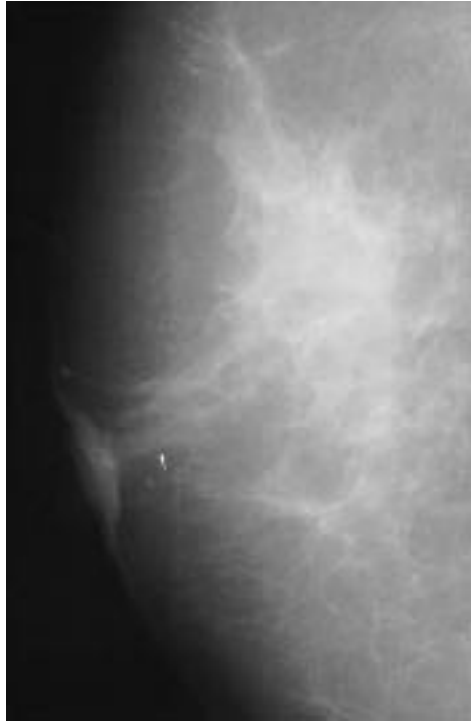


Fig. 6. The left breast in a 51-year-old woman
Mediolateral oblique mammogram shows tubular increased densities suggesting dilated ducts in subareolar area (arrow) that was neglected. Six months later, skin eczema was developed and biopsy revealed ductal carcinoma in situ with pagetoid spread.

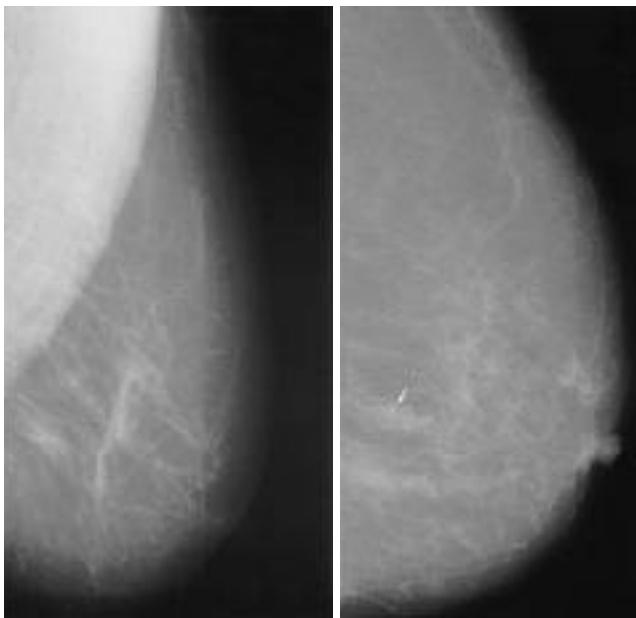


Fig. 7. The left breast in a 62-year-old woman
Mediolateral oblique mammogram shows diffuse fatty breast with no abnormalities (left). Mammogram obtained 1 year later (right) shows a developing opacity (arrow) that was confirmed as ductal carcinoma in situ.

10-15% 가 (7,8).
(Neodensity) 가 가 .
(Fig. 7)
가 가
(9).
(Interpreted as Benign)
가 (Fig. 8) 가
6
2% 가
(10,11). 가 가
(doubling time) 100-180 doubling time
1.26 가 2

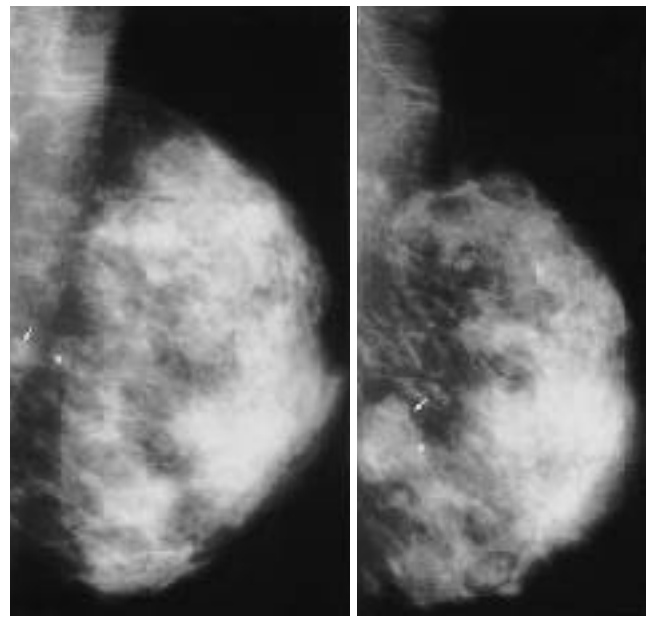


Fig. 8. The left breast in a 55-year-old woman
Mediolateral oblique mammogram (left) shows focal asymmetrical density (arrow), suggesting probably benign. One year later (right), previous lesion was enlarged and mass-like appearance was developed which proved to be invasive ductal carcinoma (arrow).

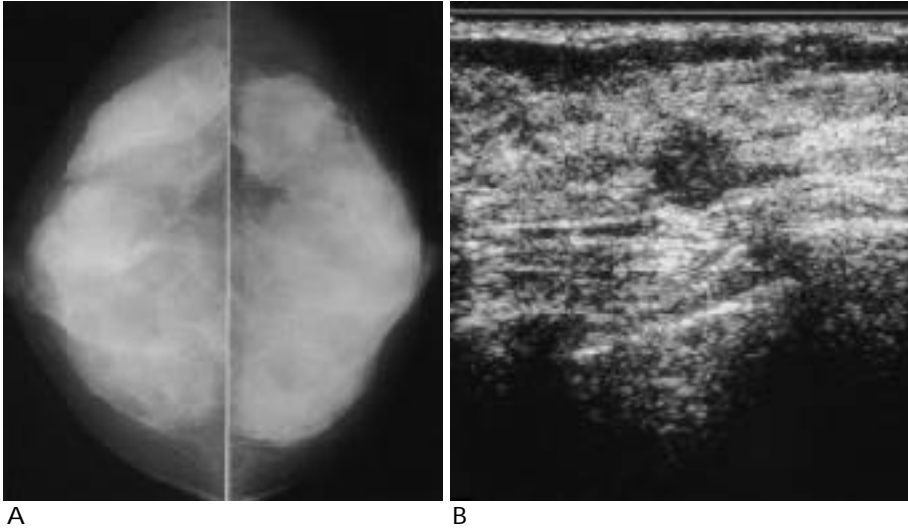


Fig. 9. The left breast in a 46-year-old woman
Both craniocaudal(A) mammograms show no gross abnormalities with diffuse dense pattern. Screening ultrasound (B) shows irregular-marginated (8mm size) hypoechoic mass which was diagnosed as ductal carcinoma in situ.

가 가
가 가
8mm 가
(11).
(Truly false-negative)
(2). 가 가
가 가
Kolb (Fig. 9).
3626
11 (0.3%)
(12).

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Variable Causes of False-Negative Mammogram¹

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Mammography is an invaluable method for the in detection of breast cancer, especially in asymptomatic patients.

Occasionally, however, mammography fails to detect cancer, resulting in false reassurance and delayed diagnosis. In this paper we describe various causes and the mammographic findings of false-negative mammograms.

Index words : Breast neoplasms, diagnosis
Breast neoplasms, radiography

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