Asymmetries in mammography

Asymmetries in mammography refer to a spectrum of morphologic descriptors for a unilateral fibro- glandular-density finding seen on one or more mammographic projections.

Criteria for asymmetry

Criteria for asymmetry include that it is seen on only one projection, the margins are not convex, or the center is not denser than the periphery.

BI-RADS Lexicon

The BI-RADS lexicon defines four types of asymmetries :

- Asymmetry: only visible on one projection
- Focal asymmetry: visible on two projections, affects less than one quadrant, has no outwardly curved borders or is interspersed with fat.
- Developing asymmetry: focal asymmetry that is new, larger or more conspicuous than in previous examinations.
- Global asymmetry: visible on two projections, affecting more than one quadrant

Screening Mammography

1. **Recall for Further Evaluation**
   The finding of asymmetry detected during screening should be recalled for further evaluation.
2. **Unchanged Findings**
   An asymmetry that is unchanged over a period of at least 2 years does not merit further investigation attention.
3. **Additional Views**
   Repeating the original view(s) with the findings is often helpful and additional. views should be considered.

Diagnostic Setting

Further Evaluation

Localized findings can be further assessed by ultrasound as part of the diagnostic procedure.

Additional Views

Repeating the original view(s) with the findings is often helpful and additional views should be considered.

AB-MRI allows a better characterization of feasible asymmetries for histological study. The combination of morphological and functional techniques categorizes them more accurately due to their high sensitivity and negative predictive value of MRI, shortening patient follow-up times.

1

Spot Compression Views

Useful for distinguishing tissue overlays from true findings (summation shadows disappear with compression)

2

90° Lateral View/LM View

Useful to localize a finding that is easier to see on the MLO projection.

3

Spot Magnification Views

Rarely helpful for asymmetries alone, but useful for assessing associated microcalcifications.

Case 1

56-year-old female. History of a negative biopsy in the right breast (RB), upper-external quadrant (UEQ), with clip placement

A-B

Mammography

CC (A) and MLO (B) views. Focal asymmetry in the UOEQ RB, posterior plane, next to the metal marker.

C

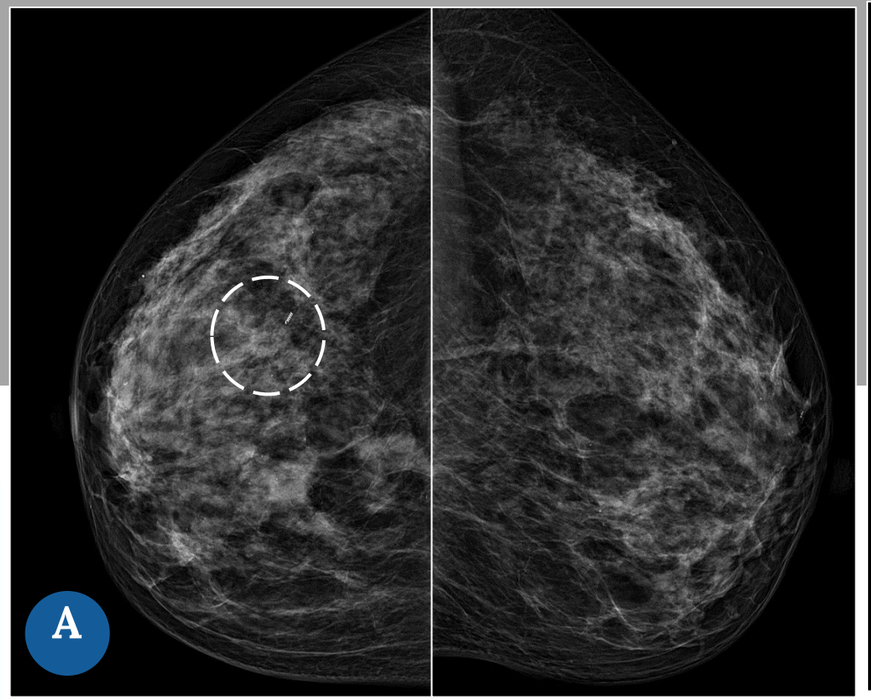
Ultrasound

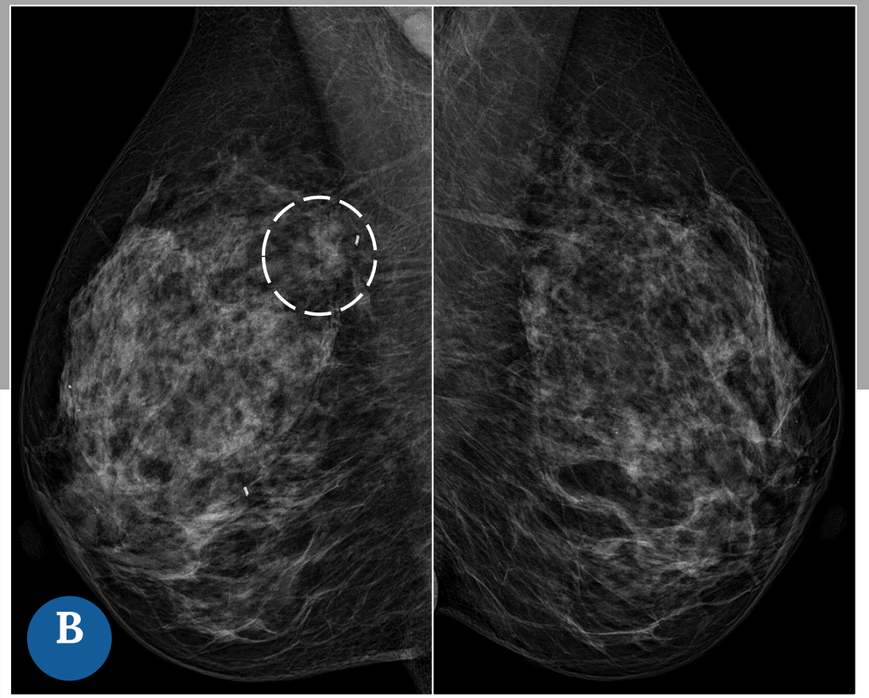
Hypoechoic area with indistinct borders in the right breast in the 12 o'clock position, posterior plane. Classified as BIRADS 4.

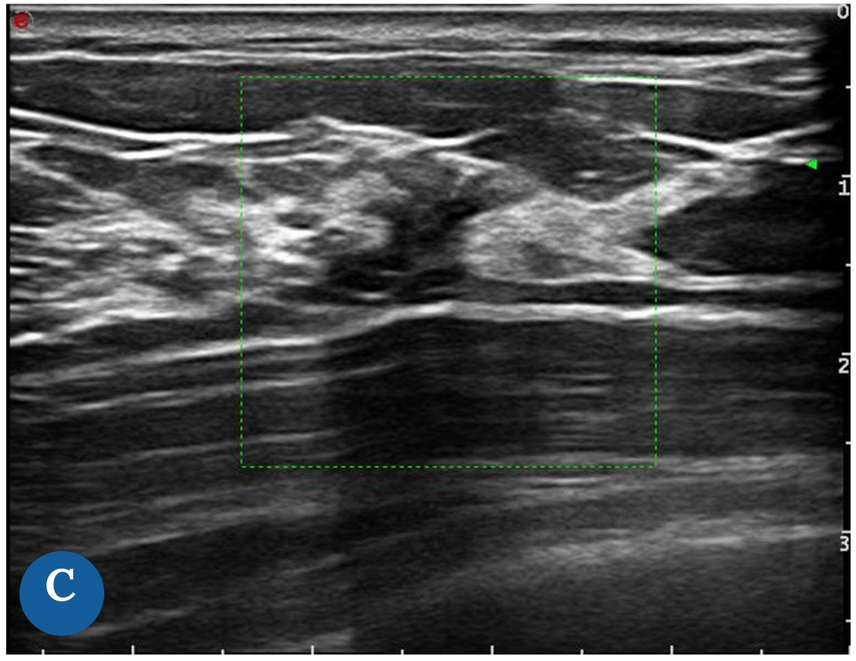
D

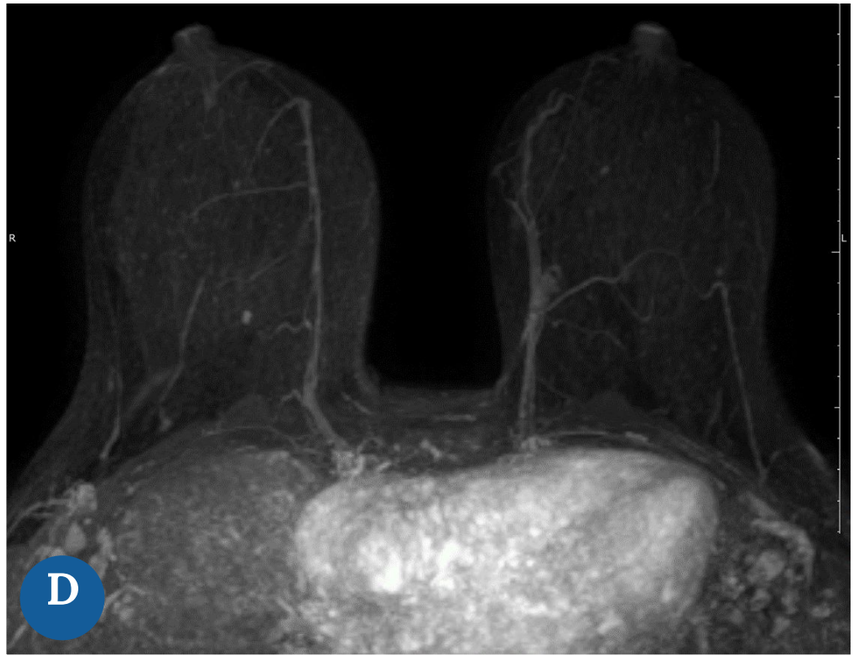
Breast AB-MRI.MIP

Absence of enhancement: Reclassification as BIRADS 2



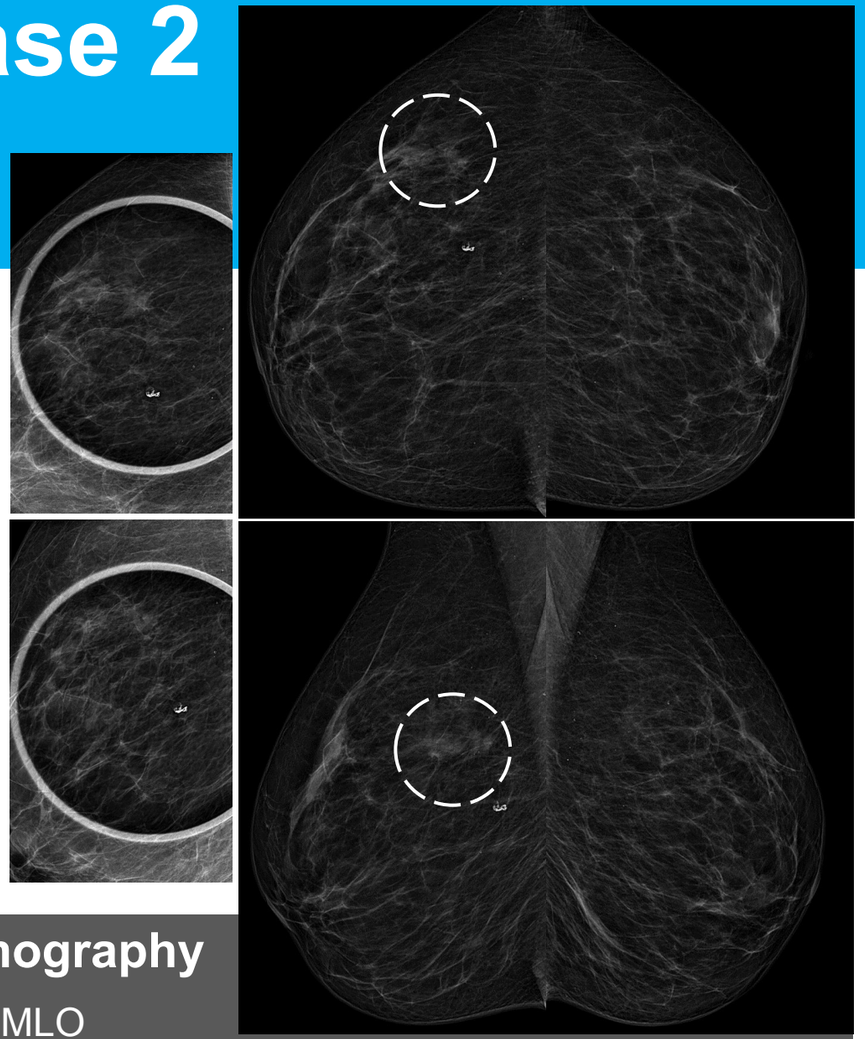






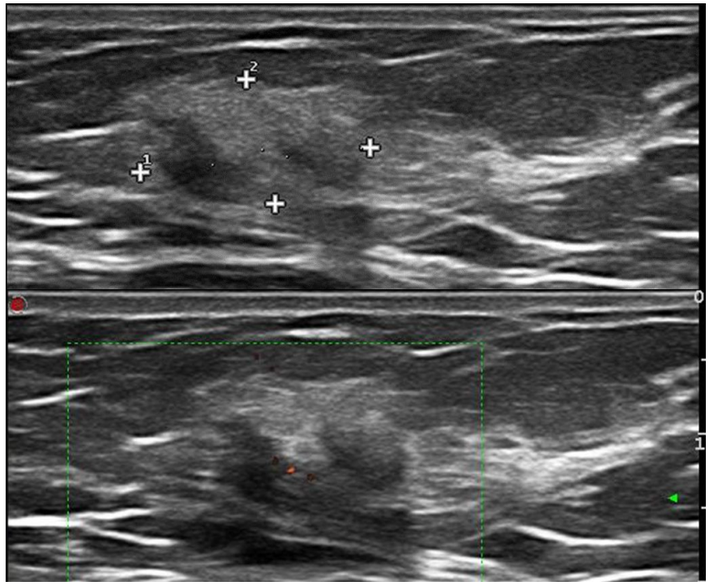
Case 2

62-year-old female. Asymptomatic. No personal or family history of breast cancer or hormonal treatment.



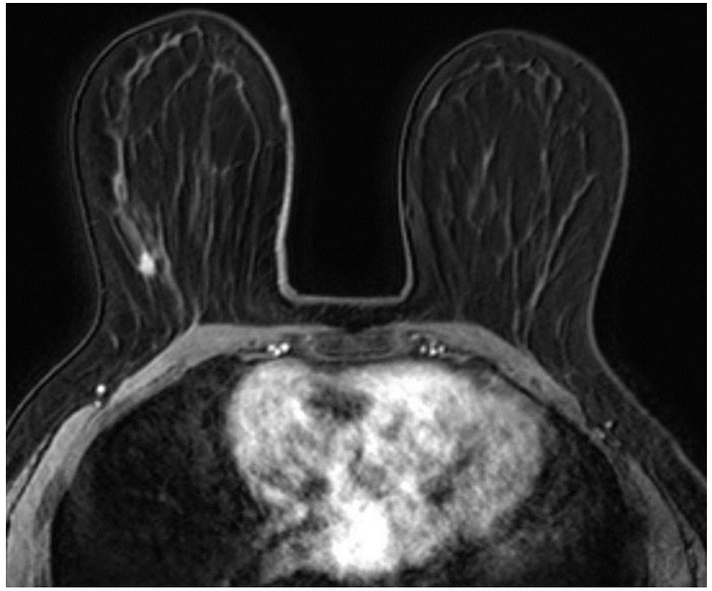
Mammography

CC and MLO
views. Focal asymmetry in the upper-external quadrant (UEQ) of the right breast (RB). Attenuation is observed with focal compression techniques.



Ultrasound

On the RB at 9 o'clock position, a heterogeneous mass with hypoechoic areas with imprecise contours surrounded by an echogenic halo is observed, with moderate vascularization and penetrating vessel. Classified as BIRADS 4.

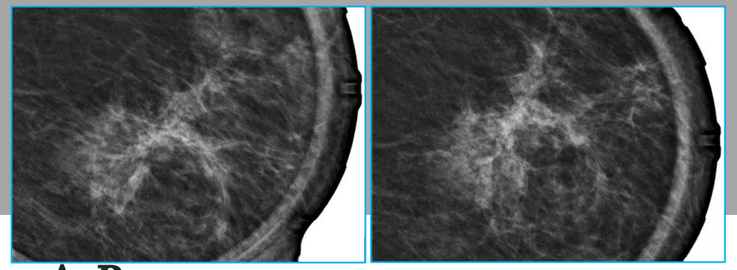


Breast AB-MRI

RB UEQ identification of a nodule with indistinct margins and marked enhancement in the posterior plane. Classified as BIRADS 4.
Histopathologic report: Infiltrating ductal carcinoma.

Case 3

50-year-old woman with bilateral mastalgia. Family history of first-degree breast cancer. No previous hormonal treatment.



A-B

Mammography

CC and MLO views. Focal asymmetry in the left breast (LB), upper outer quadrant. The persistence of focal compression is evident in the focal compression techniques.

C

Ultrasound

An area of clustered microcysts is observed on the LB at the 12 o'clock position. Breast enhanced MRI is recommended for further characterization.

D

Breast AB-MRI

Absence of enhancement. BIRADS 2