AMSER Case of the Month August 2026

The Shrinking Breast: A Classic Presentation of ILC

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Patient Presentation

- HPI: A 65 y/o woman with a PMHx of right *breast ductal carcinoma in situ* in 2012 s/p lumpectomy, chemotherapy and radiation therapy comes in for a *diagnostic mammogram* due to *shooting left breast pain*.
- Physical Exam
  - Vitals: Afebrile, hemodynamically stable
  - Left Breast: flattening of the nipple, inferior skin retraction, and diffuse breast thickening
  - Right Breast: Unremarkable

What Imaging Should We Order?

Select the applicable ACR Appropriateness Criteria

Variant: 4 Female with clinically significant breast pain (focal and noncyclical). Age greater than or equal to 40. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
US breast	Usually Appropriate	O
Digital breast tomosynthesis diagnostic	Usually Appropriate	☢☢
Mammography diagnostic	Usually Appropriate	☢☢
MRI breast without and with IV contrast	Usually Not Appropriate	O
MRI breast without IV contrast	Usually Not Appropriate	O
Sestamibi MBI	Usually Not Appropriate	☢☢☢

This imaging modality was ordered by the referring provider

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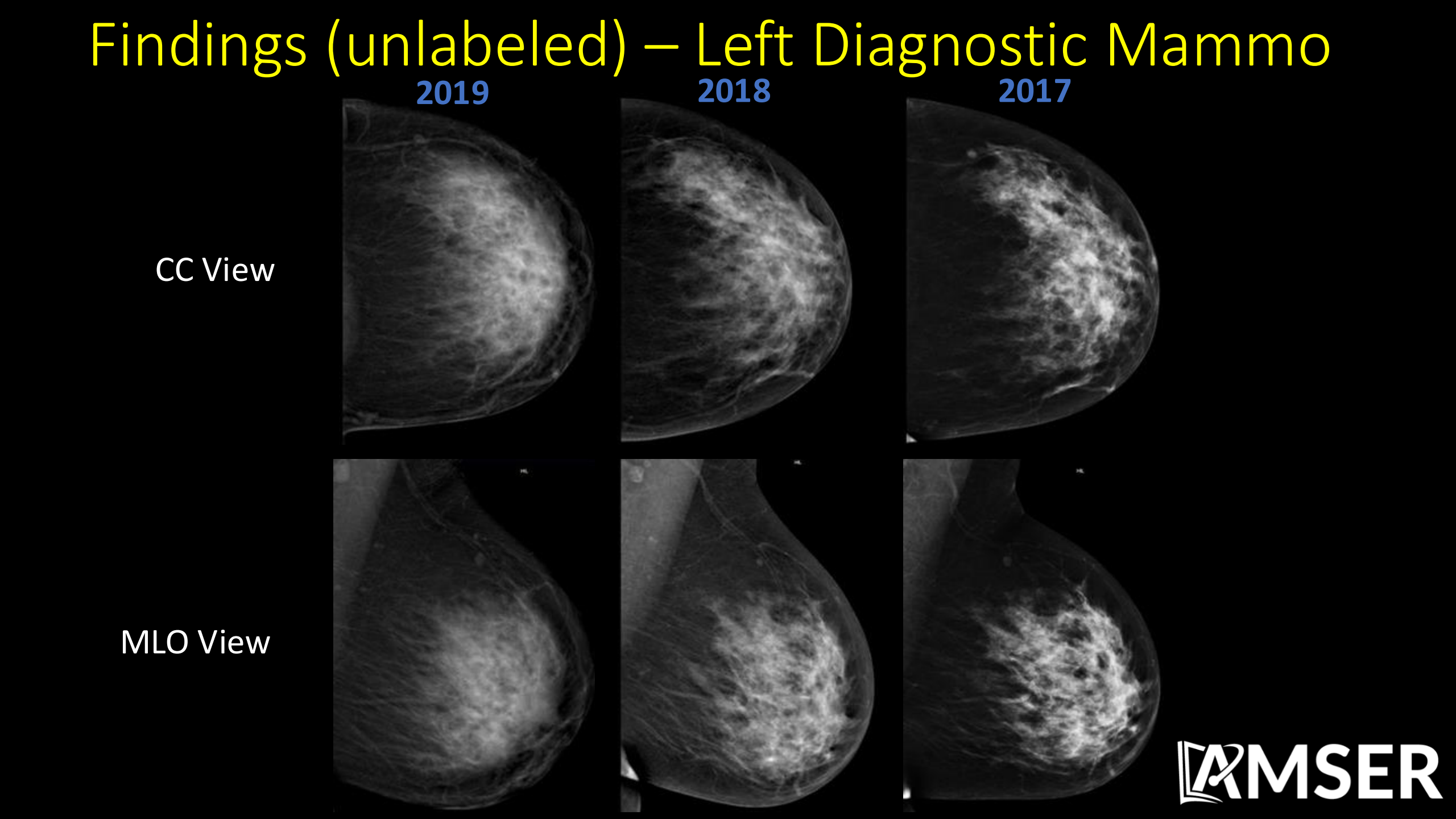
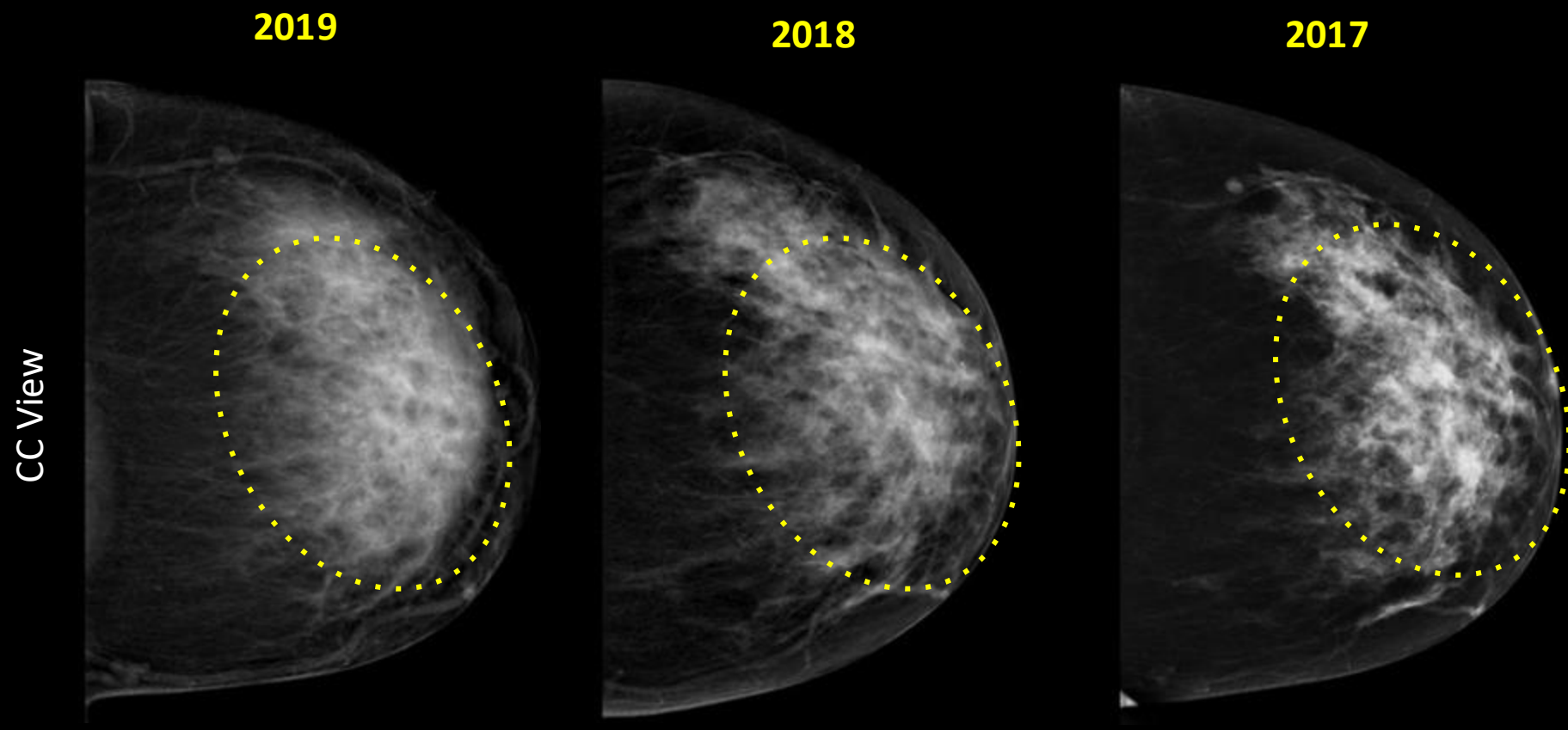
Findings (unlabeled) – Left Diagnostic Mammo

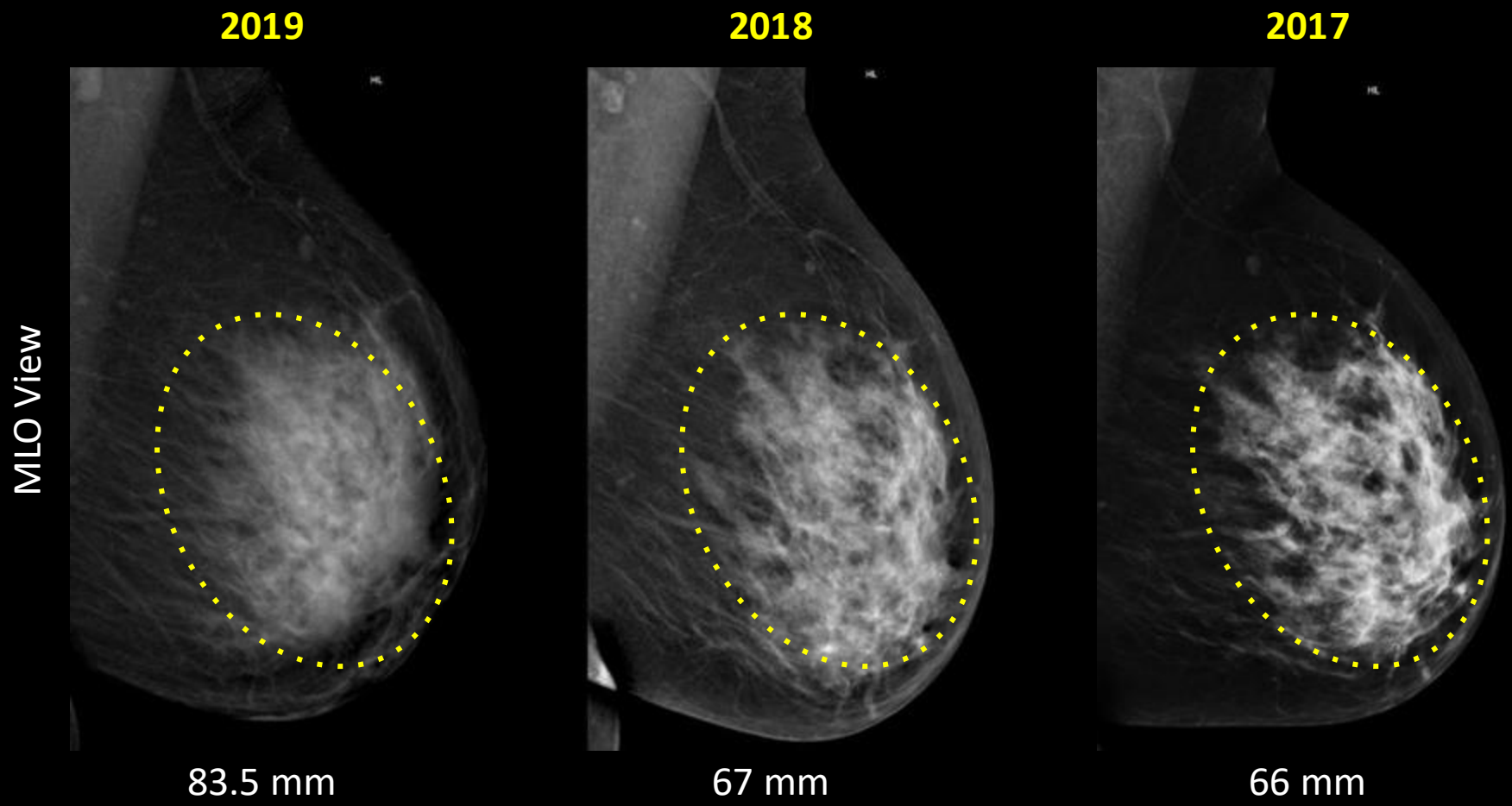


Findings: (labeled)



Increase in Breast Density + Increased Thickness

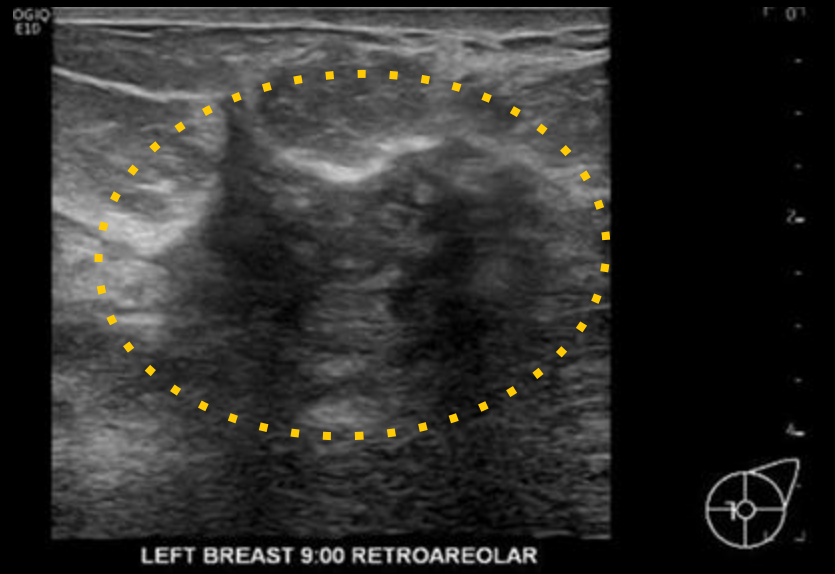
Findings: (labeled)

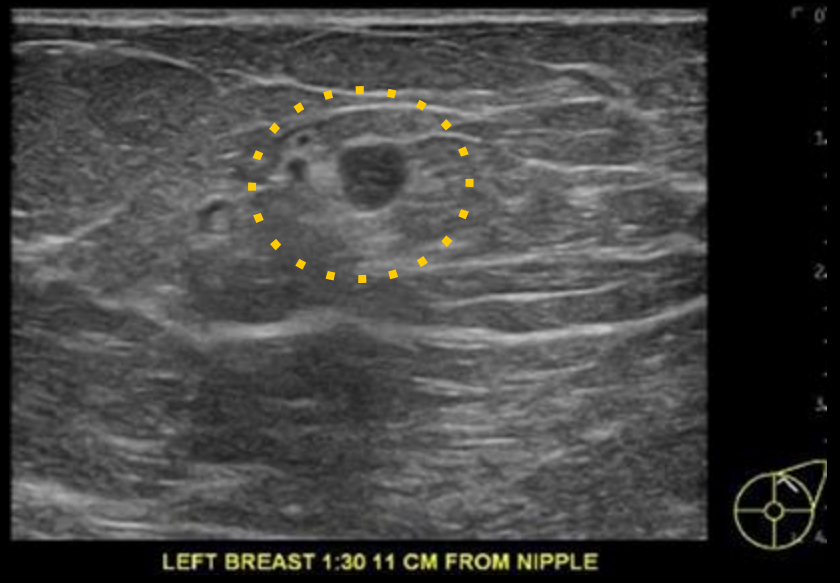


Increase in Breast Density + Increased Thickness

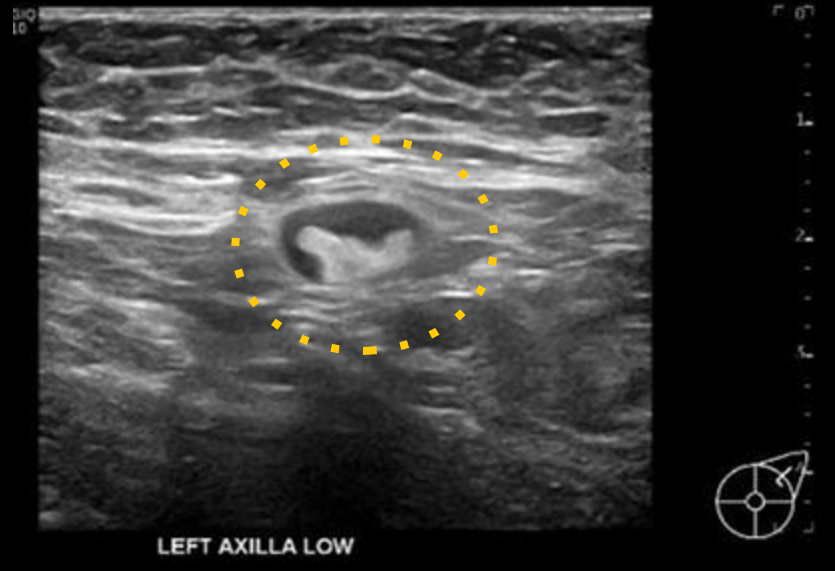
Left Breast + Axillary Ultrasound

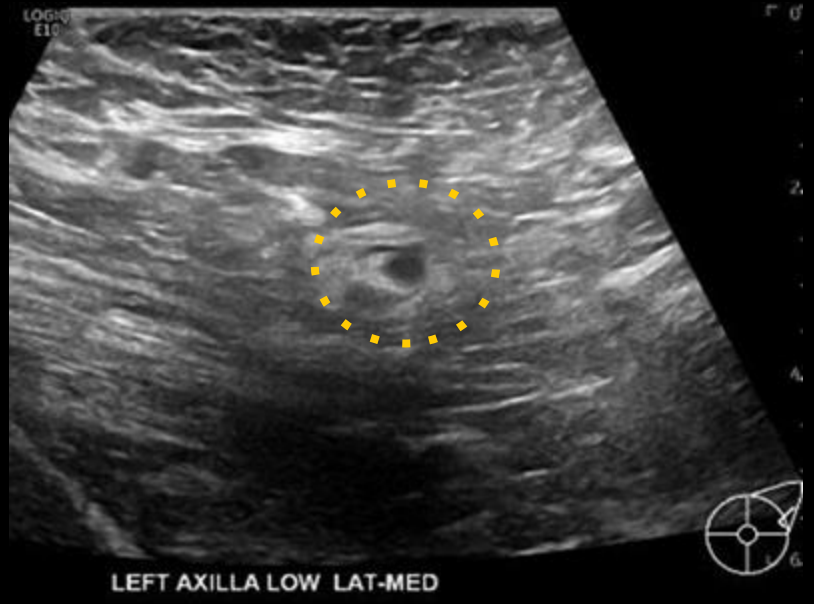
Breast





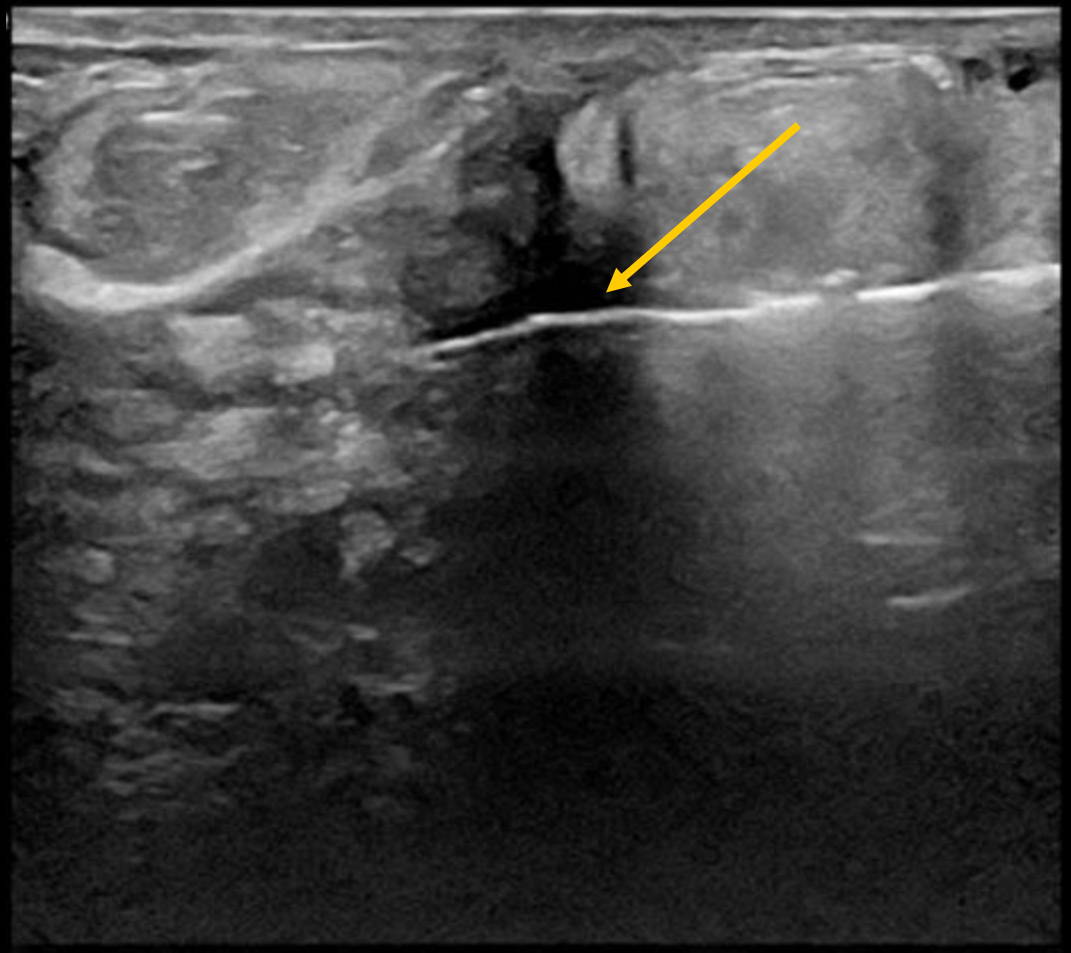
Axilla



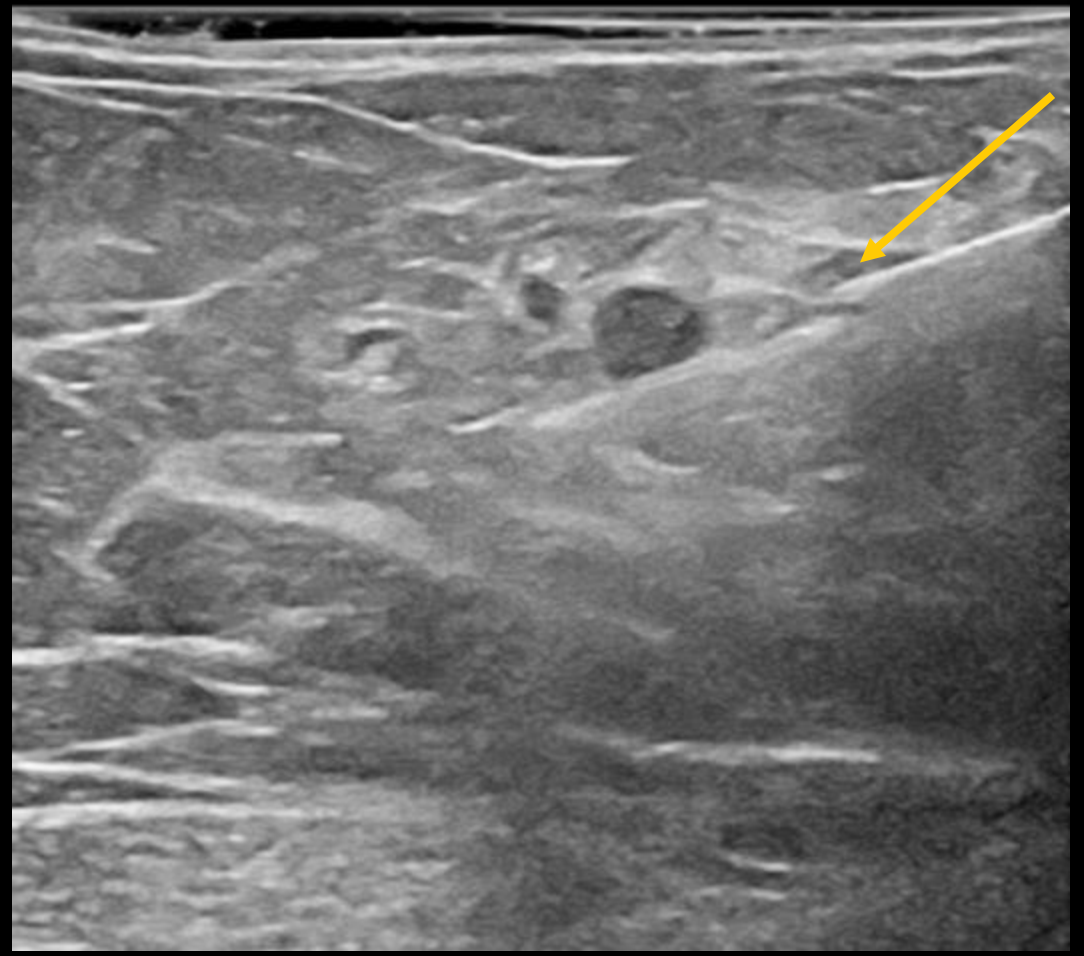


U/S Impression: BIRADS 4 (SUSPICIOUS) -> biopsy recommended

US Guided Core Needle Biopsy



Left Breast Retroareolar



Left Breast UOQ

Summary of Work-Up

- Mammogram + Left Breast + Left Axillary Lymph Node U/S:
  - Increased breast density
  - Decreased compressibility
  - UOQ enlarged intramammary lymph node
  - Impression - BIRADS 4
- Ultrasound Guided Core Needle Biopsy

Final Dx (left breast retroareolar bx):

Invasive Ductal Carcinoma - Stage IIIb (cT3N3bM0), Bloom-Richardson Grade 2; Receptor Status: ER +, PR +, and HER2-

Case Discussion: ILC – What is it?

- 2nd most common invasive breast cancer[2]
- 5-10% of invasive breast cancers[2]
- Difficult Detection and 67% of patients present with metastatic disease[3]

Clinical Presentation
Vague clinical symptoms: palpable area of the breast, nipple changes, skin dimpling, asymmetric breast sizes[2]

Pathology
Loss of E-Cadherin, Single File Growth Pattern, and Preserved Ductal Architecture [4]

Receptor Status:
Often ER+, PR+, and HER2- [5]

Imaging
Mammography: Low sensitivity (57-81%), with no classic findings and up to 30% of cases are occult[2].
Ultrasound: High sensitivity (68-98%), classic finding of hypoechoic irregular mass with posterior shadowing[2].

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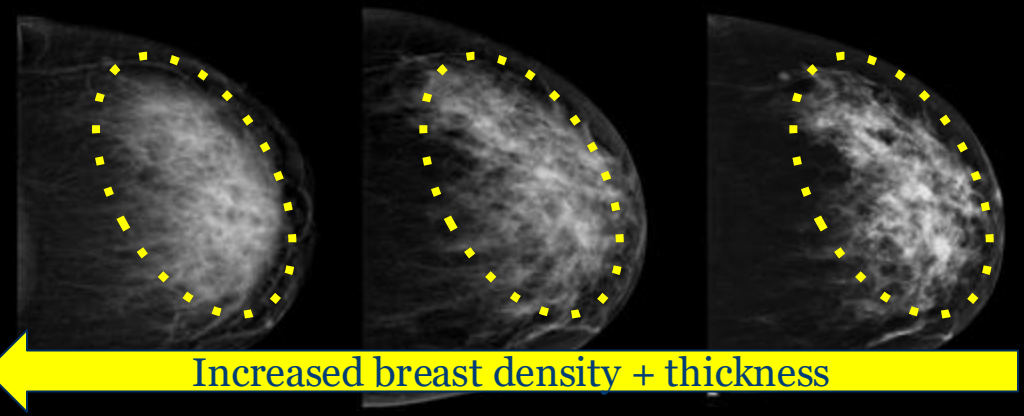
Case Discussion

Differential Dx

Increased **breast density**

- Decreased Breast Thickness → Weight Loss
- Similar Breast Thickness → Ask about HRT use, especially if **breast density is bilaterally increased**
- Increased Breast Thickness → Concern for **malignancy**! (less compressible = "shrinking breast")[1]

Normally with age you would expect decreased breast density due to loss of glandular tissue



Increased breast density + thickness

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Case Discussion

- Management:
  - Genetic Testing:
    - Done for family history of multiple family members with cancer including brother with history of prostate cancer and +CHEK2 mutation
    - Patient is CHEK2 negative
  - Imaging:
    - CT chest/abdomen/pelvis for staging
  - Neoadjuvant chemotherapy + anti-hormone therapy
  - Surgery
    - Left breast mastectomy and axillary lymph node dissection
  - Radiation therapy post-mastectomy + adjuvant chemotherapy

References:

1. Jafri, N. F., & Slanetz, P. J. (2007). The shrinking breast: an unusual mammographic finding of invasive lobular carcinoma. Radiology Case Reports, 2(3), 94.
2. Manning, P., Fazeli, S., Lim, V., Ladd, W. A., Eghtedari, M., Chong, A., ... & Ojeda-Fournier, H. (2022). Invasive lobular carcinoma: a multimodality imaging primer. RadioGraphics, 42(4), E115-E116.
3. Reed, A. E. M., Kutasovic, J. R., Lakhani, S. R., & Simpson, P. T. (2015). Invasive lobular carcinoma of the breast: morphology, biomarkers and'omics. Breast cancer research, 17(1), 12.
4. Yu J, Dabbs DJ, Shuai Y et-al. Classical-type invasive lobular carcinoma with HER2 overexpression: clinical, histologic, and hormone receptor characteristics. Am. J. Clin. Pathol. 2011;136 (1): 88-97. doi:10.1309/AJCP7URIW0QETTAT

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