

# AMSER Case of the Month

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85M with palpable breast mass

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# Patient Presentation

- **HPI:** 85 y/o man presenting for breast surgery consult after 6.5 x 5.3 cm soft tissue mass of left breast incidentally detected upon chest CTA
- **PMH:** HTN, HLD, COPD, renal insufficiency, PAD with chronic ulcerations of right lower leg
- **PSH:** Partial right foot amputation
- **FH:** Family history of breast cancer in sister
- **PE:** 6.5 cm soft, central mass of left breast. There is nipple distortion, but no erythema, skin changes, or discharge. No cervical, supraclavicular, infraclavicular, or axillary lymphadenopathy
- **Pertinent labs:** none

What Imaging Should We Order?

# Select the applicable ACR Appropriateness Criteria

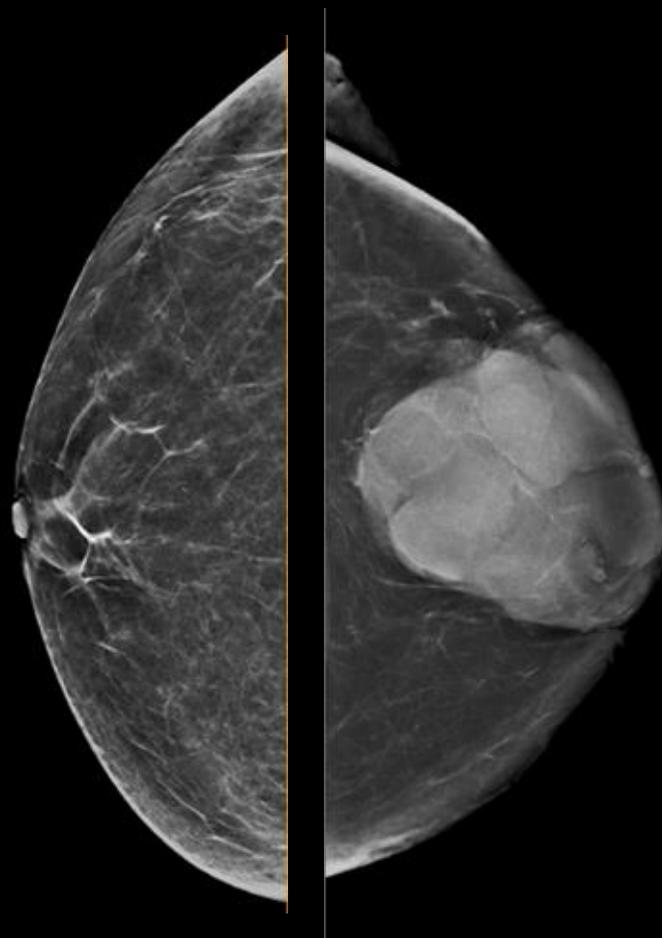
**Variant 5:**

**Male of any age with physical examination suspicious for breast cancer (suspicious palpable breast mass, axillary adenopathy, nipple discharge, or nipple retraction). Initial imaging.**

Procedure	Appropriateness Category	Relative Radiation Level
Mammography diagnostic	Usually Appropriate	⊕⊕
Digital breast tomosynthesis diagnostic	Usually Appropriate	⊕⊕
US breast	Usually Appropriate	○
MRI breast without and with IV contrast	Usually Not Appropriate	○
MRI breast without IV contrast	Usually Not Appropriate	○

These imaging modalities were ordered by the Breast Center physician

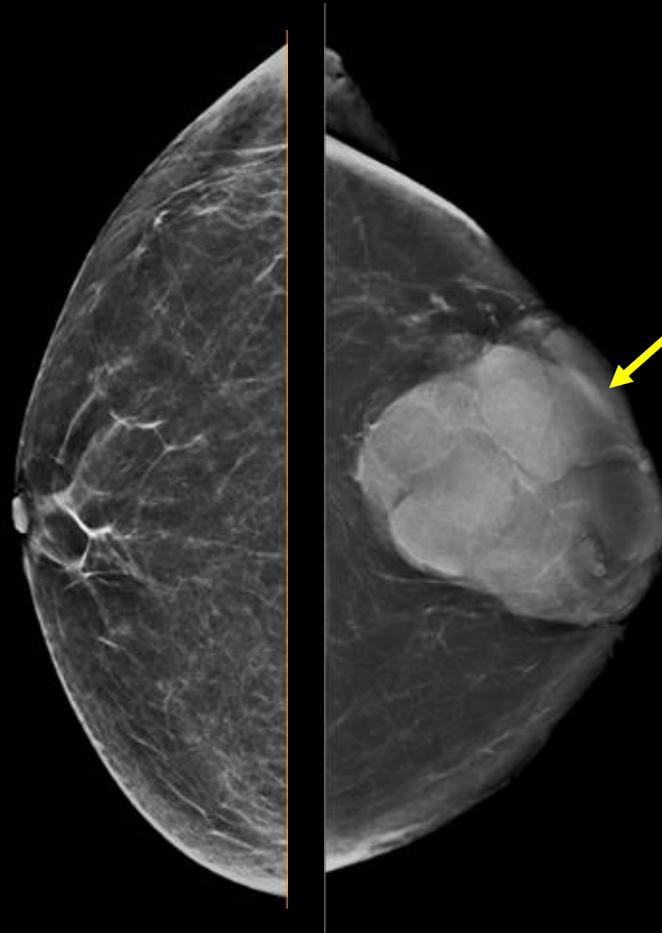
# Diagnostic Mammogram (unlabeled)



R-CC

L-CC

# Diagnostic Mammogram (labeled)

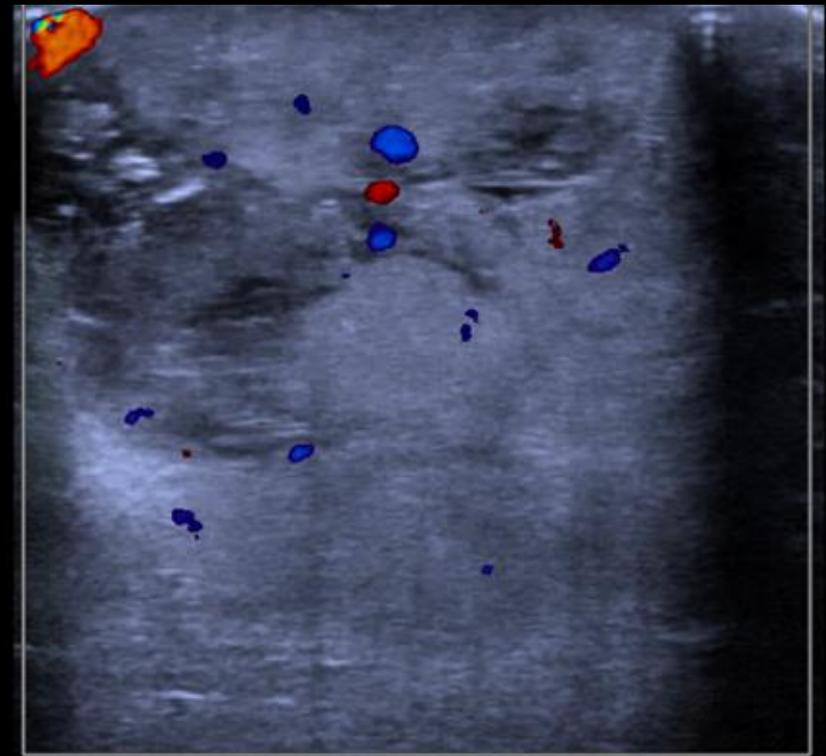
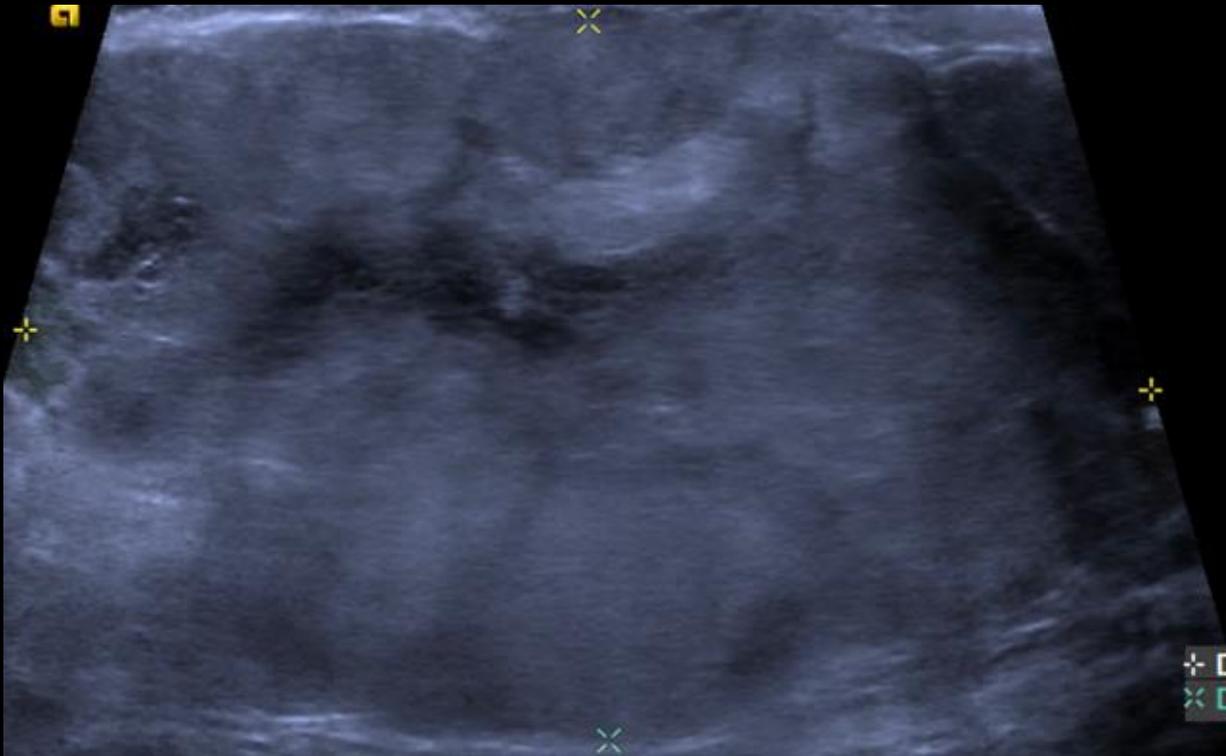


6.6 x 6.1 x 7.7 cm  
macrolobulated high  
density mass in the  
retroareolar/periareolar  
left breast

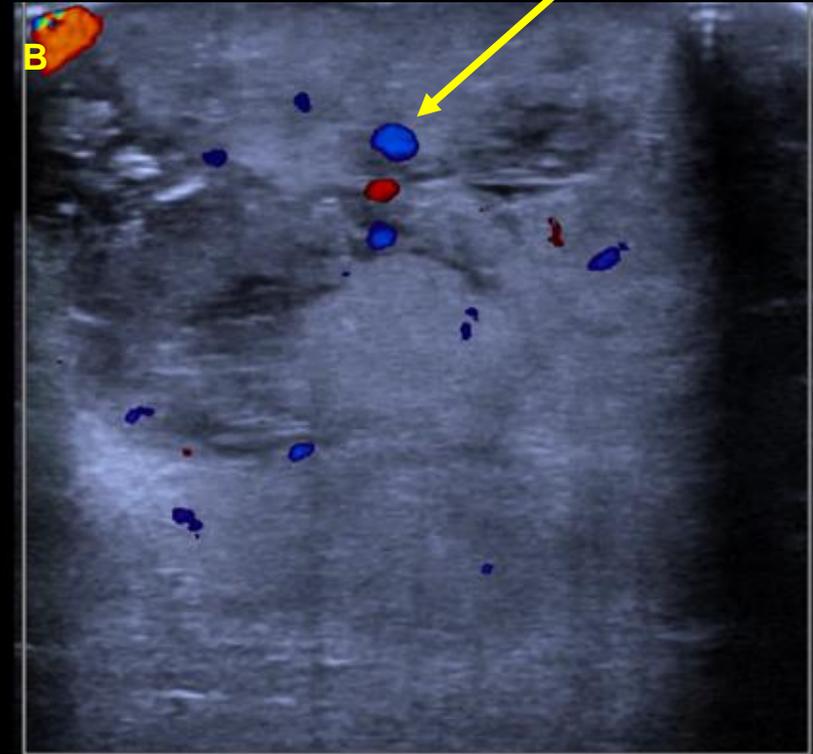
R-CC

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# Ultrasound (unlabeled)



# Ultrasound (labeled)



- A. There is a mixed echogenicity macrolobulated 6.9 x 4.5 x 6.2 cm mass in the retroareolar left breast, corresponding to the palpable abnormality (outlined by calipers).
- B. The mass demonstrates minimal increased internal vascularity (yellow arrow).

**Final Dx:**

Invasive Mucinous Carcinoma (Colloid Adenocarcinoma)

# Male Breast Cancer

DDx: Male breast cancer vs. gynecomastia vs. lipoma or cyst?

- Male breast cancer is uncommon and thus understudied, despite upward trend in incidence
  - In 2021, 2,650 new diagnoses of male breast cancer expected
- Alarm features for male breast cancer:
  - axillary adenopathy
  - nipple discharge
  - nipple retraction
  - clinically suspicious mass

# Mucinous Carcinoma

- Mucinous (colloid) carcinoma is a relatively rare form of invasive breast cancer, representing only 1-4% of all cases
- **Histological Features:**
  - Well-differentiated carcinoma cells in small clusters, surrounded by lakes of extracellular mucin
- **Two General Types: Pure and Mixed**
  - Pure type: tumor tissue only, with extracellular mucin production
  - Mixed type: tumor where 50-90% of the area is mucinous and also admixing with infiltrating ductal epithelial component
- **Imaging Features:**
  - Most mucinous carcinomas appear on mammography as low-density, well-circumscribed round or oval masses. Calcifications are rare, but have been reported
  - On ultrasound, the tumor appears isoechoic or hypoechoic to subcutaneous fat
  - Homogeneity on sonography associated with the pure type of mucinous carcinoma, yielding a better prognosis

# Management: Male Breast Cancer

- Management of male breast cancer mirrors female breast cancer in many ways
- Mastectomy is currently the gold standard of care for male breast cancer
  - Increasing data suggests that breast-conserving surgery yields equivalent outcomes
- Genetic testing should be considered
- Chemotherapy recommended on the basis of female breast CA guidelines

# References:

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