

Evaluation and Treatment of Breast Diseases

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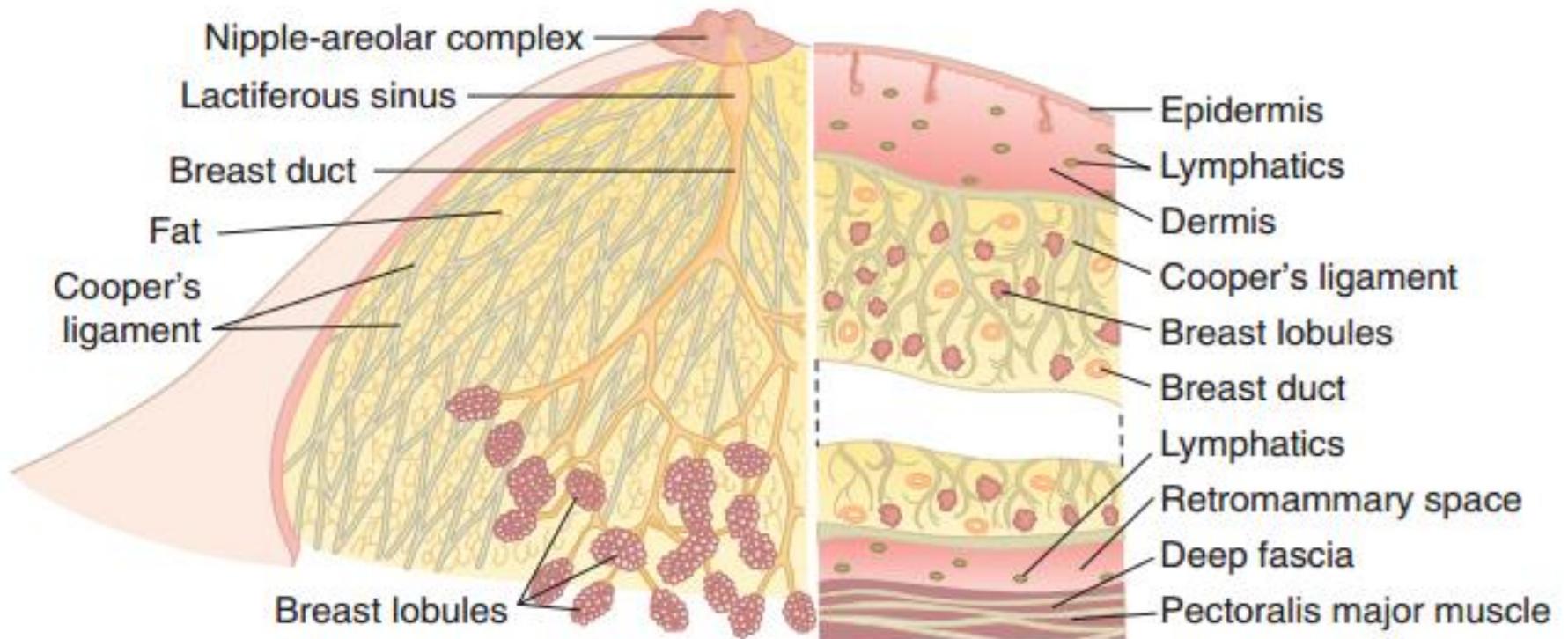
Objectives

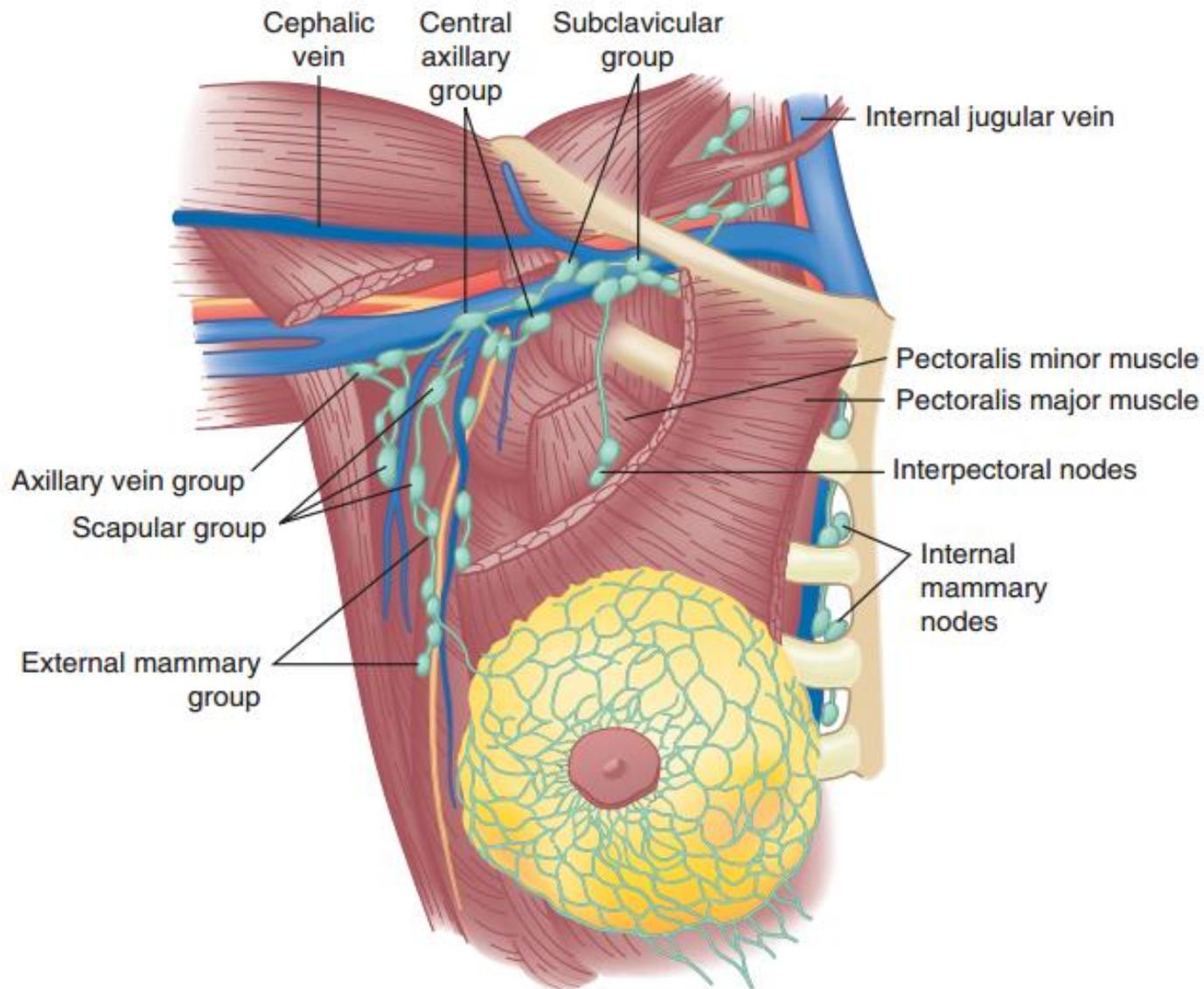
- Provide the guidelines for routine screening mammography.
- Describe the diagnostic workup and management for common breast conditions including pain, nipple discharge, and mass.
- Provide the differential diagnosis of a breast lump based on patient age.
- Describe the options for surgical treatment of breast cancers.
- Describe the rationale for chemotherapy, radiation therapy, and hormonal therapy in the treatment of breast cancer.

History

- Duration
- Change in mass size
 - Stable or growing
 - Fluctuating
- Nipple discharge
 - Uni- versus bilateral
 - Color
 - Spontaneous or elicited
 - One or multiple ducts
- Precipitating factors
 - Change in medication
 - Menstrual cycle
 - Pregnancy
- Constitutional symptoms
 - Weight loss
 - Fever
 - Fatigue
- Past medical/surgical history
- Medications
- Family history

Anatomy





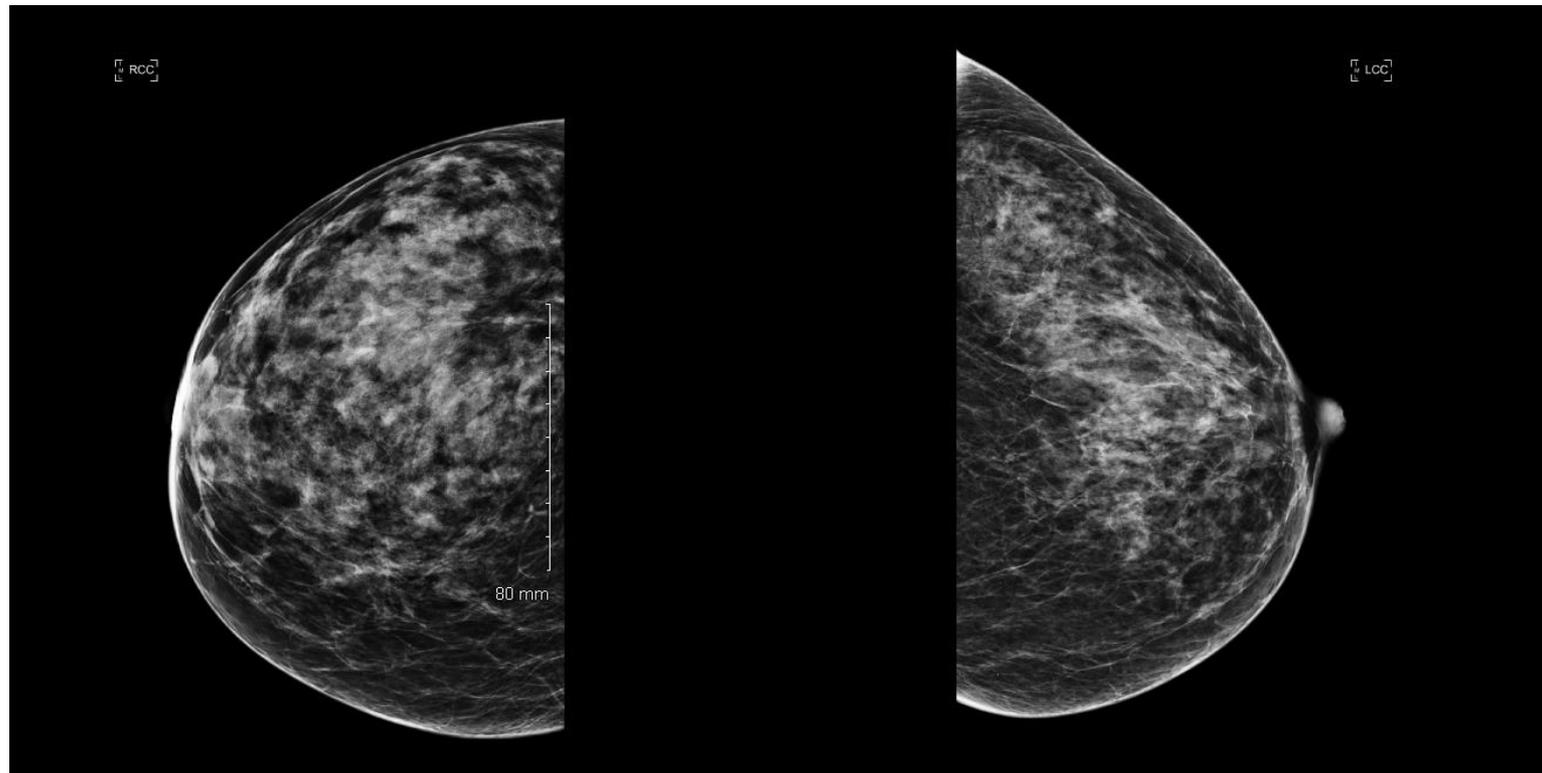
Physical Exam

- Visual inspection
- Palpation
 - Breast
 - Nodal basins
- Nipple discharge
 - Location
 - Character
 - One or multiple ducts
 - Trigger point?

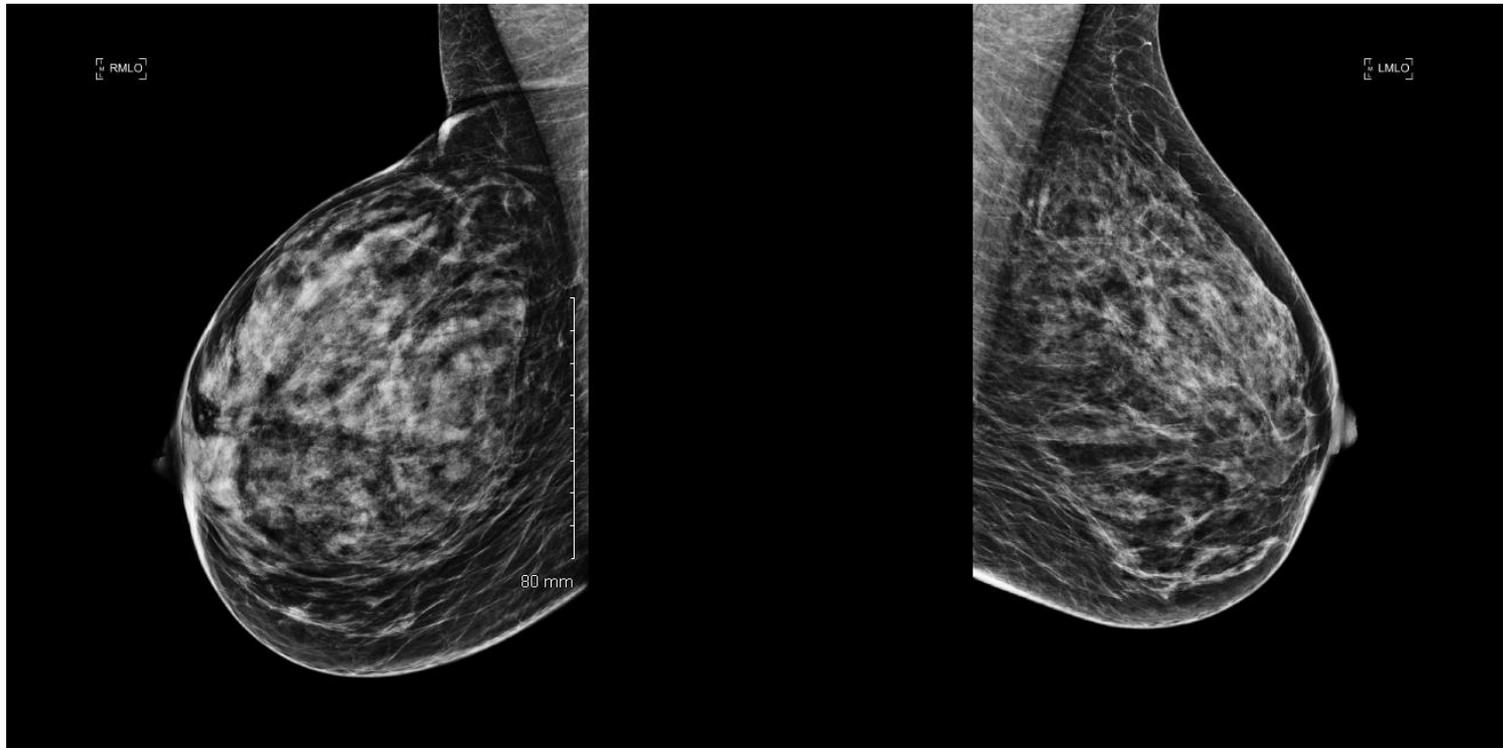
Imaging

- Mammography
 - Patient age
 - Screening versus diagnostic
- Ultrasound
- MRI in select cases

Mammographic Views

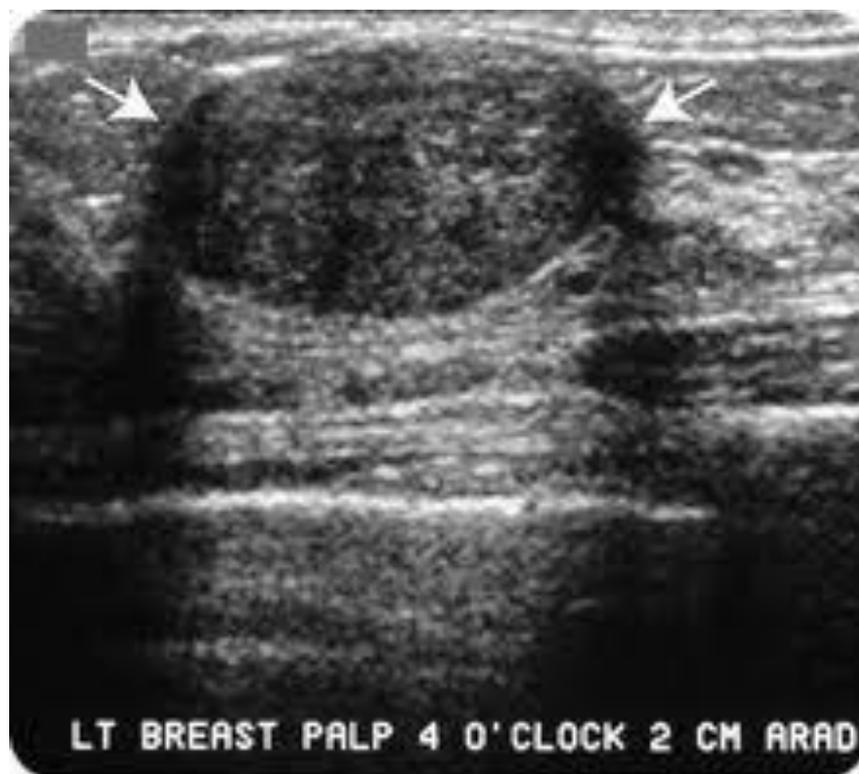


Mammographic Views



Case Study #1

- 14 year old adolescent presents with a left breast mass that she first noticed 2 months ago



Fibroadenoma

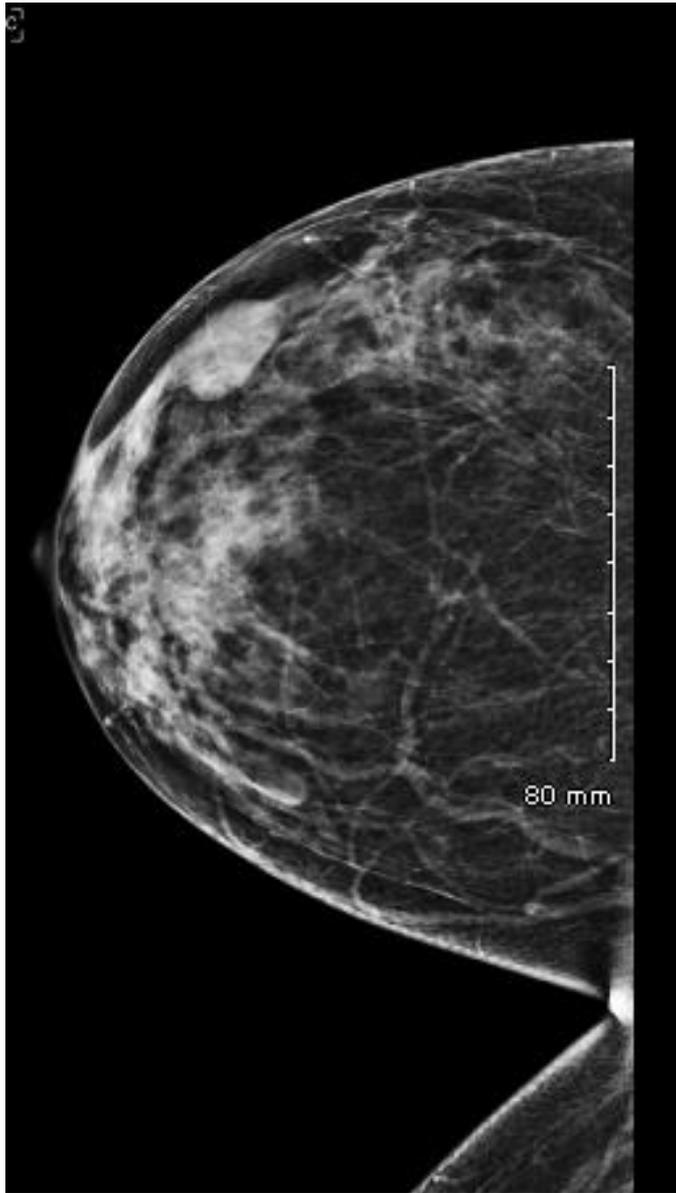
- Likely due to exaggerated response to estrogen
- Initial period of growth over 6-12 months then stabilize
- Average 2-3 cm, can be quite large
- Often present in late adolescence
 - Can occur 1-2 years prior to menarche
 - Can occur/be identified throughout lifetime
- More common in African Americans
- 10% bilateral
- 25% multiple

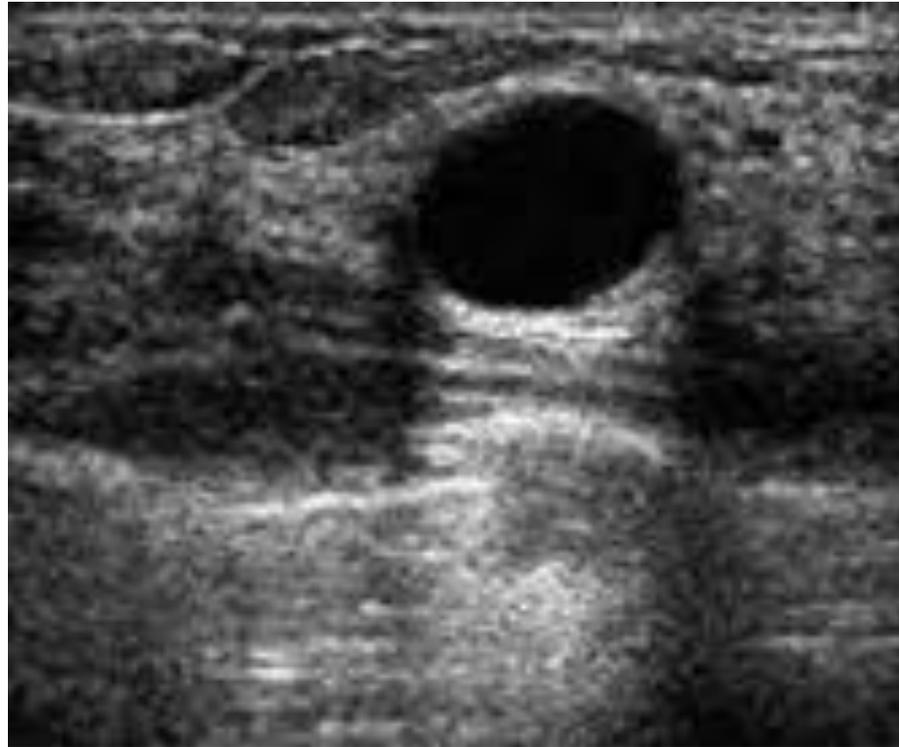
Management

- History
- Exam
- Ultrasound
 - Biopsy if atypical features
 - Typical features
 - Repeat ultrasound in 3-6 months
 - Biopsy or excise if growing
 - Excision or percutaneous treatment
 - Excise if >5 cm
- May remain stable, resolve, or grow

Case Study #2

- 38 year old young woman presents with a tender 2 cm right breast mass that appeared “overnight”
- ???





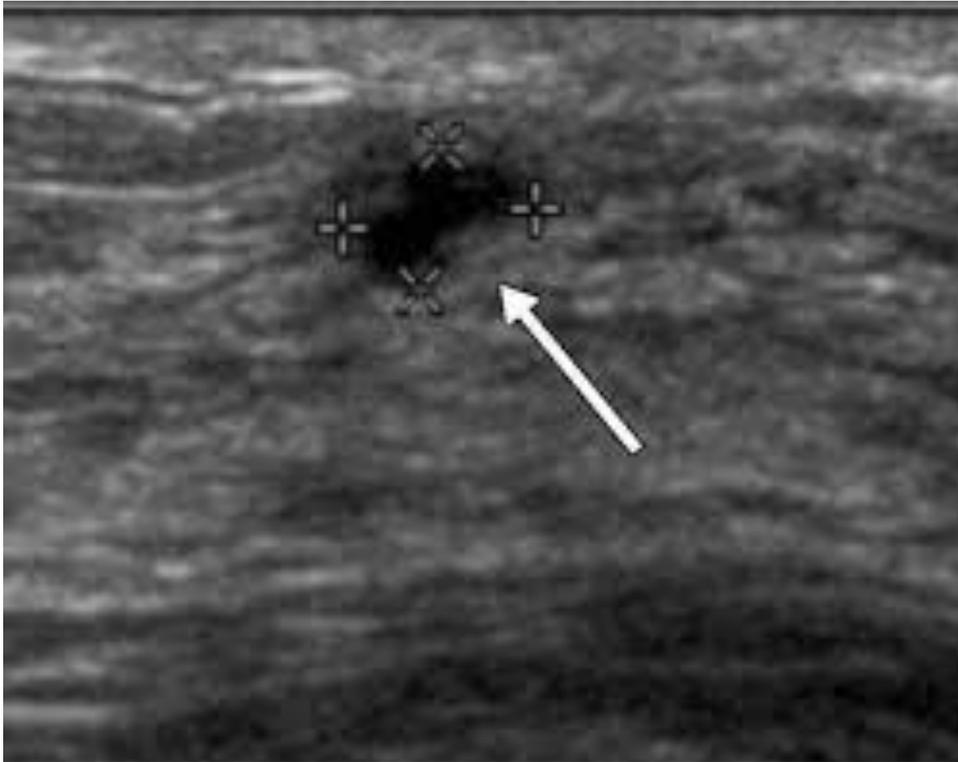
Cyst

- Fluid filled epithelial space
- Often multiple and bilateral
- Ultrasound
- If simple
 - Observation
 - Simple aspiration
- If symptomatic or complex
 - Aspiration or biopsy
 - Excision if fluid bloody or aspiration incomplete
- Percutaneous removal

Case Study #3

- 45 year old woman presents with bilateral breast pain

Mammogram and Ultrasound



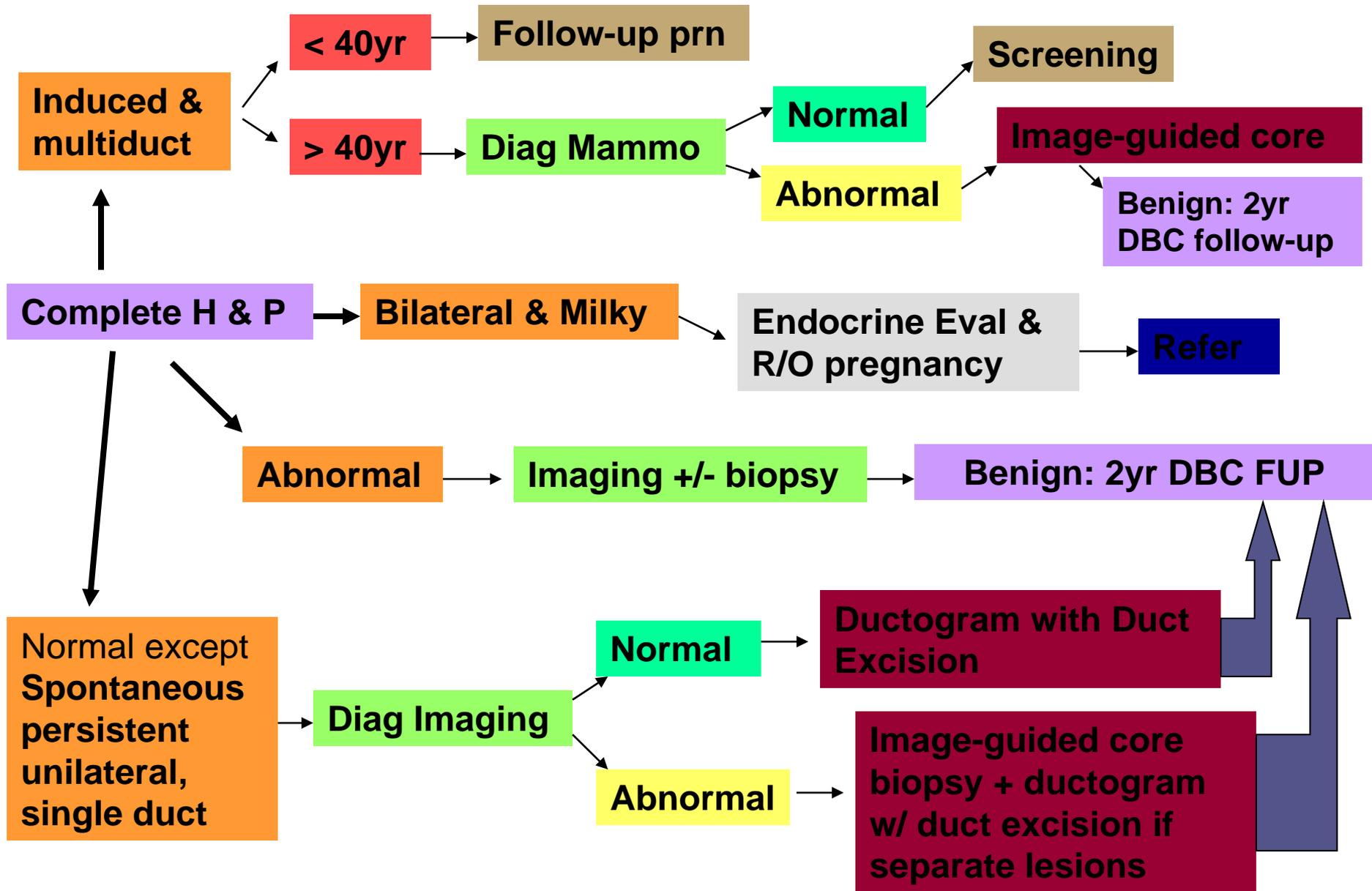
Breast Pain

- Cyclical – hormonal
- Fibrocystic breast changes
- Reassurance
- Supportive bra
 - Ensure correct size
 - Try without underwire
 - Sports bra at night
- Oral contraceptives
- NSAIDs
- Unlikely beneficial
 - Vitamin E
 - Evening primrose oil
 - Caffeine avoidance
- Non-cyclical
 - Cysts
 - Fibroadenomas
 - Costochondritis
- NSAIDs

Case Study #4

- 40 year old woman presents with nipple discharge

Nipple Discharge

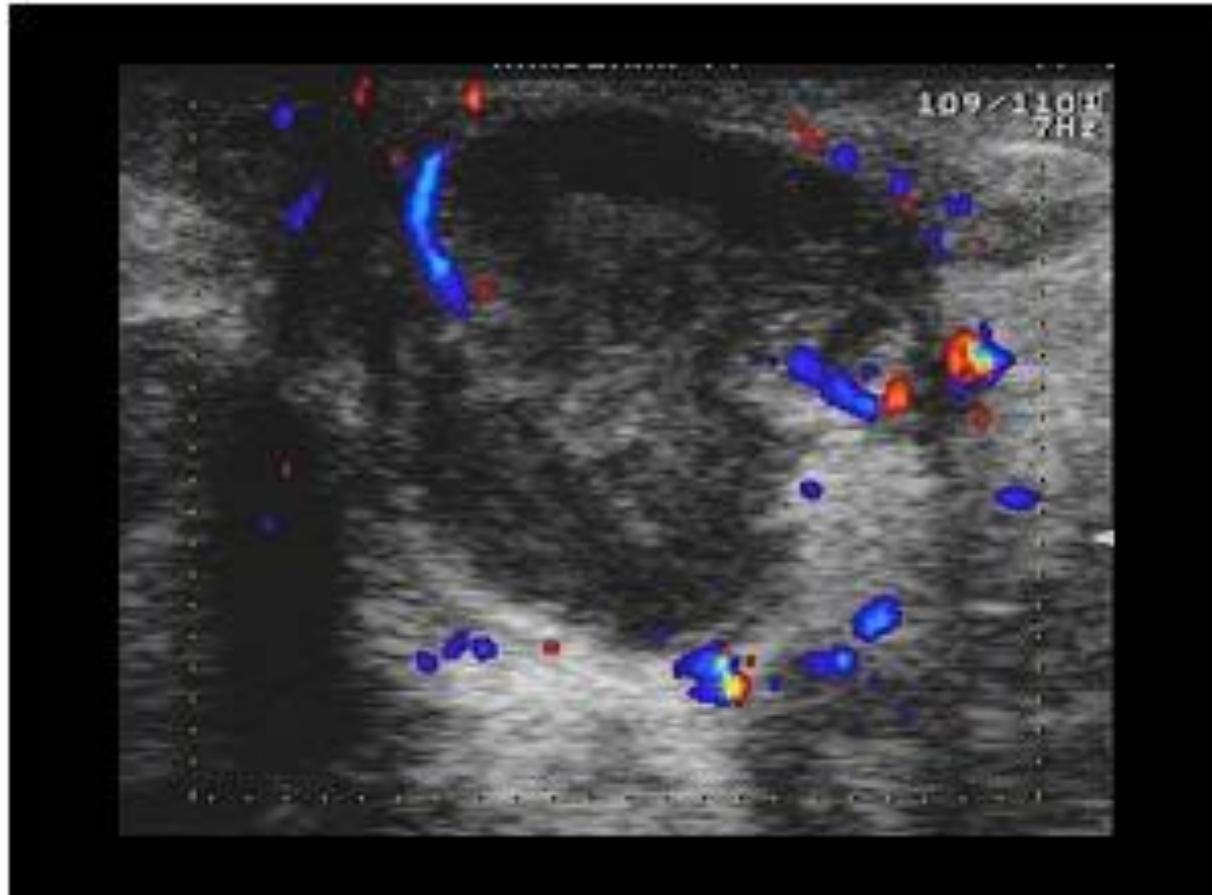


Common Causes of Nipple Discharge

- **Benign**
 - Medications
 - Infection
 - Fibrocystic breast changes
 - Duct ectasia
 - Papillomas
- **Malignant**

Case Study #5

- 28 year old woman who is currently breast feeding her 6 month old baby present with a 3 cm tender right breast mass with overlying redness and swelling



Case Study #6

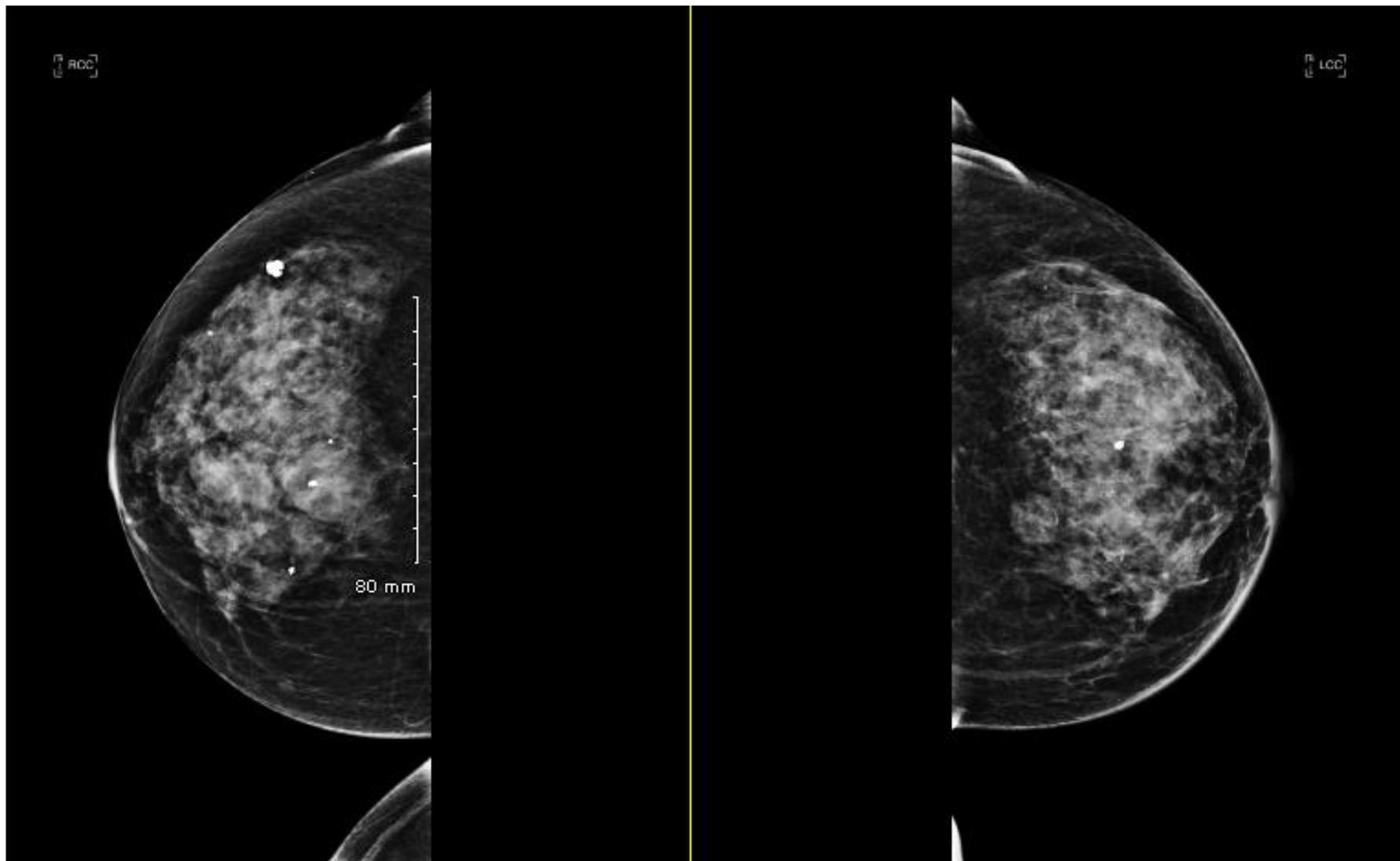
- 39 year old woman presents to you asking about having her first mammogram

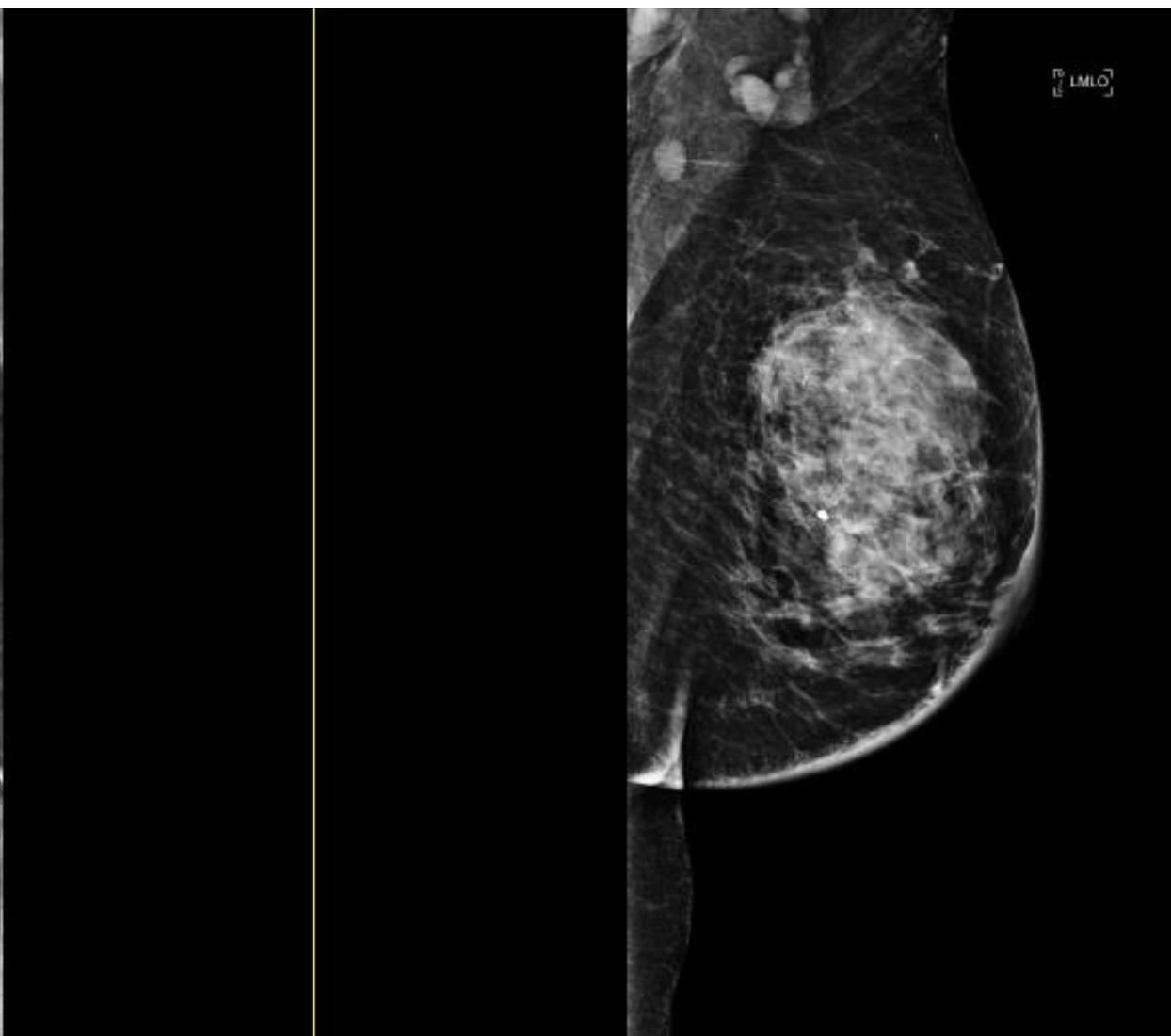
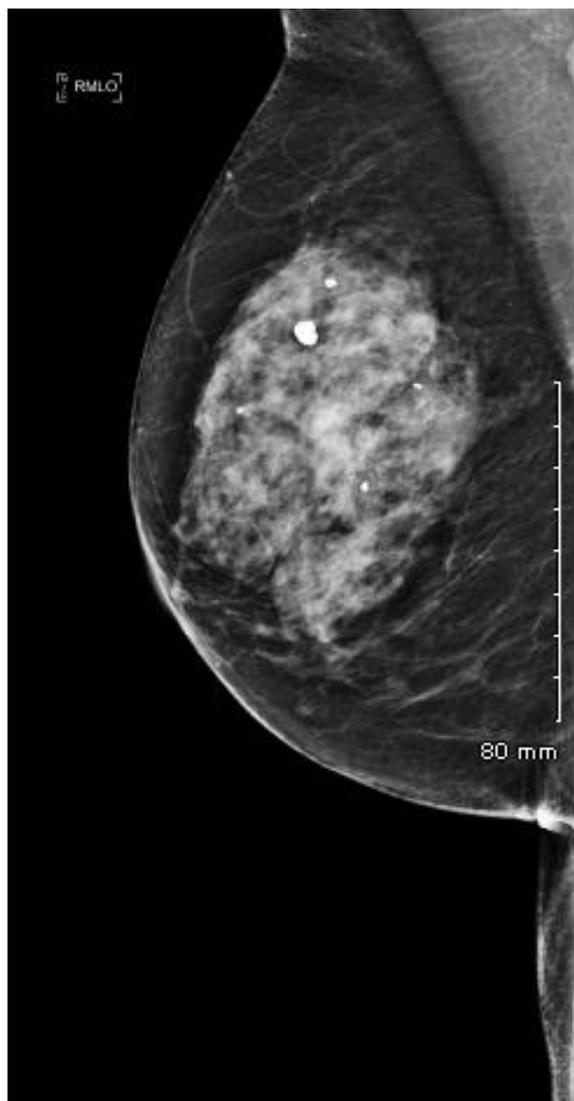
Case Study #7

- 73 year old woman presents with a newly diagnosed 1 cm ER/PR+ HER2- invasive ductal carcinoma
 - Surgery?
 - Radiation?
 - System therapy?

Case Study #7

- 58 year old woman presents with sudden onset of left breast erythema and swelling and nipple retraction
- Diagnostic mammogram/ultrasound shows 2 cm ill defined mass with probable ductal extension towards nipple, axillary adenopathy
- Pathology shows ER/PR weakly positive, HER2+ invasive ductal carcinoma





Case Study #9

- 37 year old woman presents with a 2 cm left breast mass, mammogram unremarkable

