

# Breast Evaluation & Management Guidelines

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# Objective

- Review screening & diagnostic guidelines
- Focused patient complaints
- The abnormal screening mammogram
- Screening controversies
- Defining the high risk patient

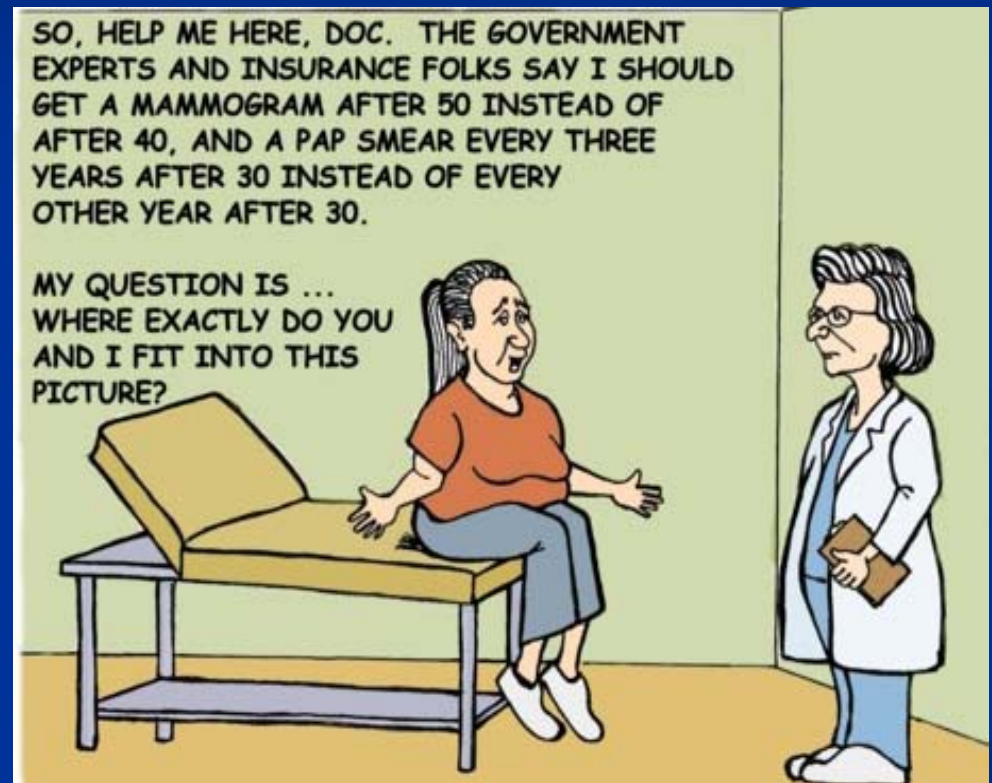
# Screening Guidelines

- American Cancer Society
  - Yearly screening beginning at age 40
  - High risk patients start 5-10 years prior to the youngest 1<sup>st</sup> degree relative with breast cancer
  - Self breast exams optional

# U.S. Preventive Services Task Force - 2009

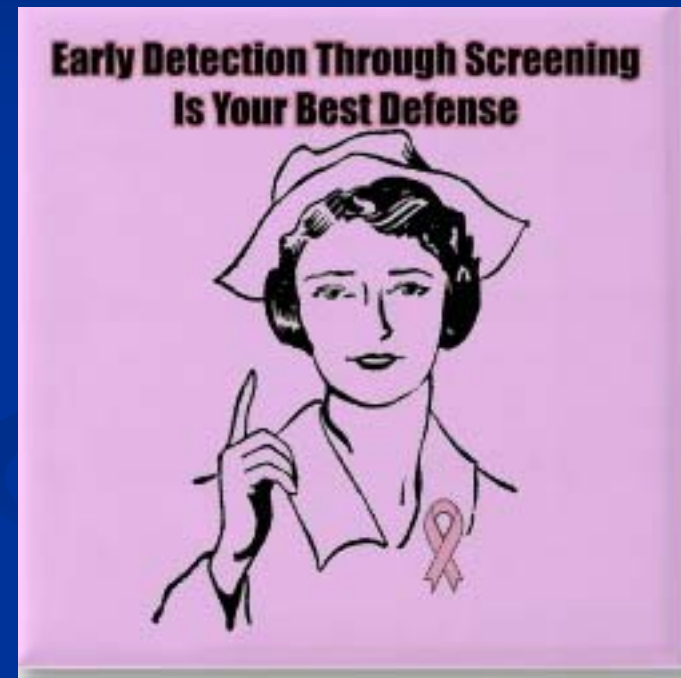
## Revised Guidelines

- Screening every 2 years beginning at 50
- SBE not encouraged
- Insufficient evidence to screen after 75



# Guidelines?

- Screening mammogram beginning at 40
  - ACS, ACR, AAFP, American College of Surgeons
- Clinical breast exam (CBE) annually starting at 40 yearly
  - AAFP, ASBS, ACS
- Breast health awareness

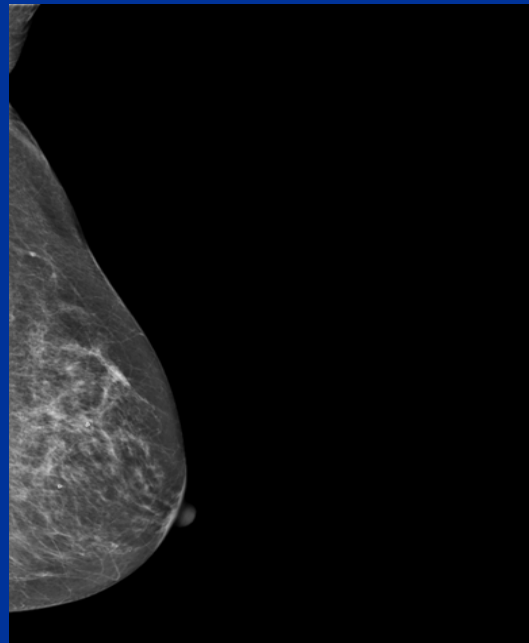
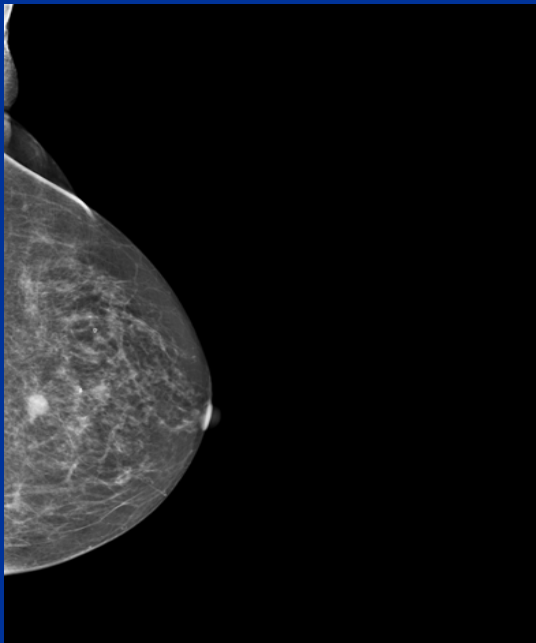


# Diagnostic Films

- Mammogram
  - Any clinical finding
  - Personal history of cancer, < 5 years
- Ultrasound ?
  - Breast pain, palpable lump, nipple discharge

# Diagnostic

- Diagnostic Mammograms
  - 3 views: CC, lateral and spot compression



# Focused Complaints

- Breast Mass
- Nipple discharge/nipple changes
- Breast pain
- Breast abscess or mastitis
- Gynecomastia



# Dominant Breast Mass

- History
- Management
  - CBE
  - Diagnostic mammogram & U/S
- Differential
  - Cysts, solid lesions, fibrocystic change

# Breast Mass

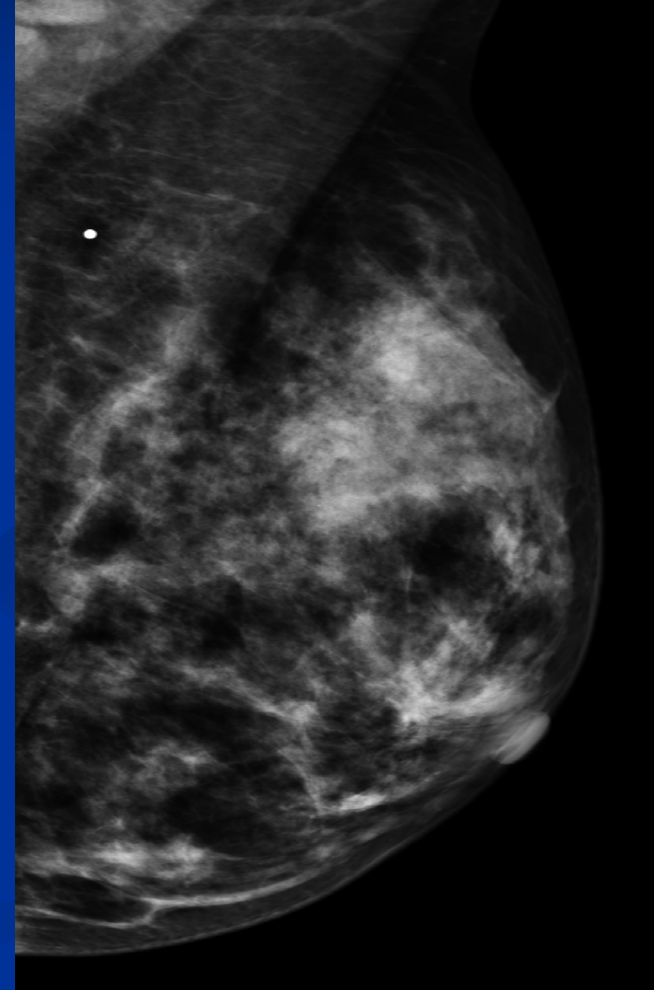
- Cycle considerations
  - How long do you observe?
- Palpable lesion, with normal films – what's next
  - Surgical referral
  - Core biopsy vs. observation, based on suspicion
  - 3 month return

# Fibrocystic/Nodular Changes

Cyclic in nature

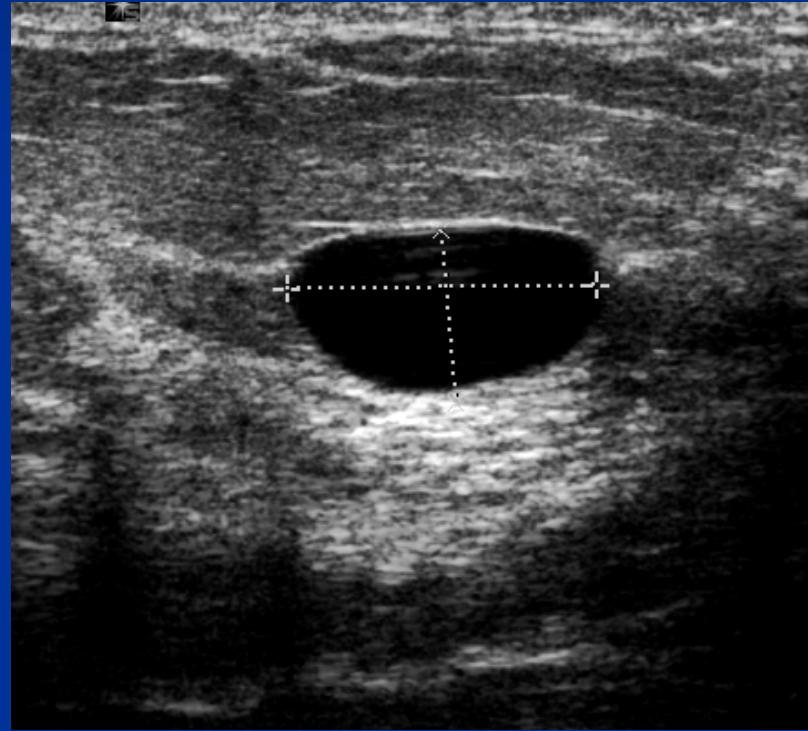
Associated with  
mastodynia

Office repeat CBE, 3 or 6  
months



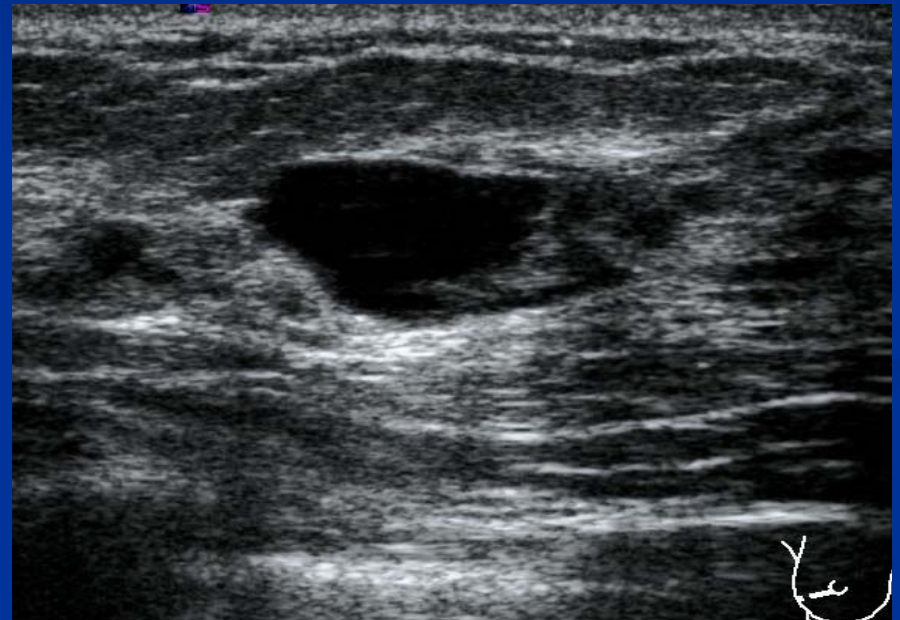
# Simple Cyst

- Treatment based on symptoms
- Aspiration
  - Free hand or image guided
- Excision not favored



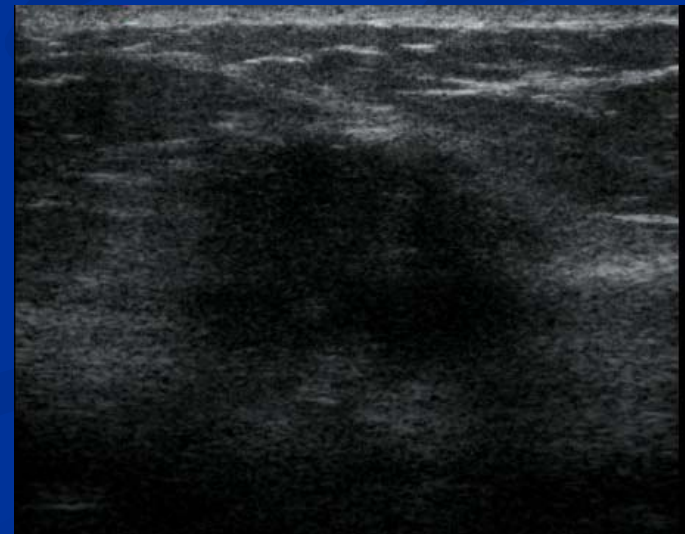
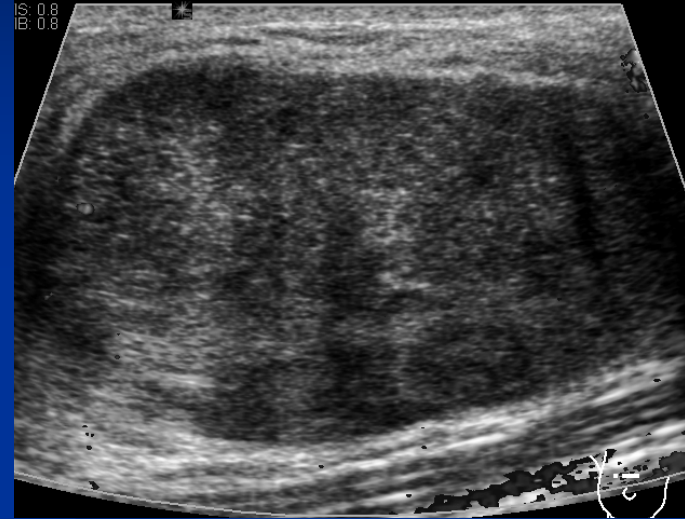
# Complex Cyst

- Treatment
  - Observation, repeat imaging studies
- Malignancy rate estimated at 0.3%



# Solid Lesions

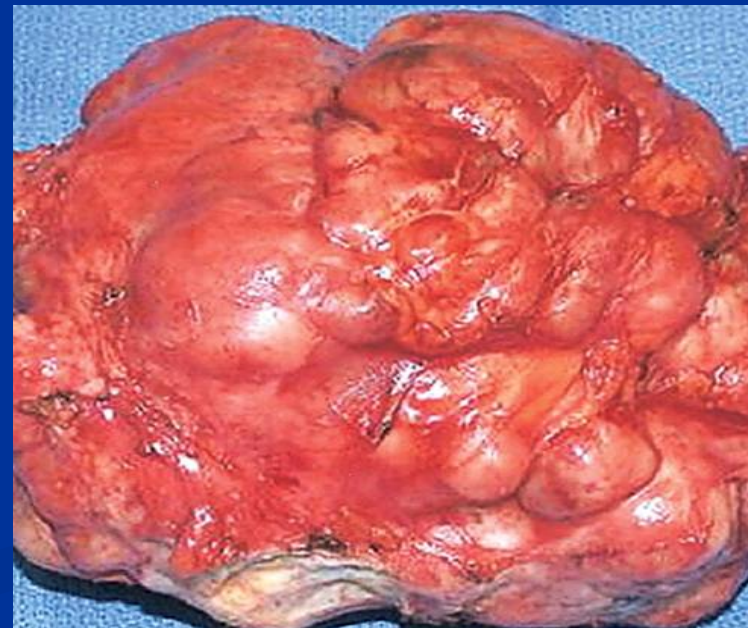
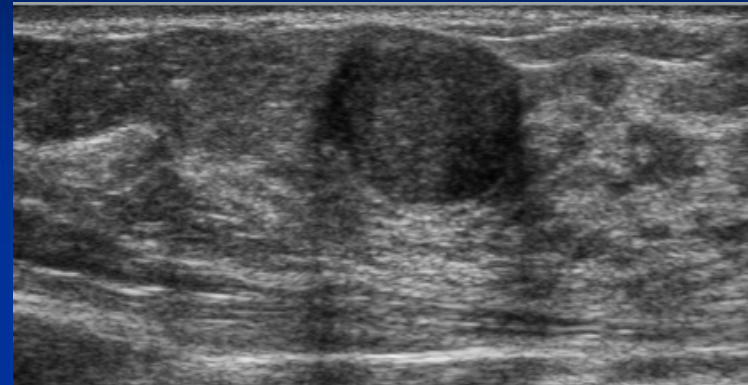
- Benign tumors
  - Fibroadenomas, phyllodes, papilloma, lactating adenoma
- Malignant tumors





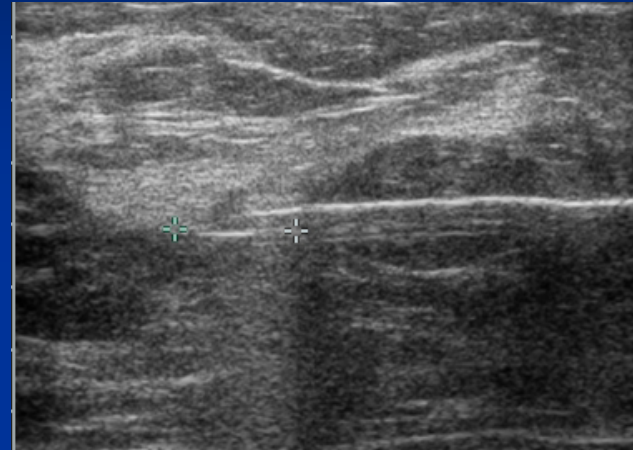
# Benign Solid Tumors

- Fibroadenoma
  - Biopsy considerations
- Treatment is multi-factorial
  - Surgical or observation
  - Cryoablation
  - Repeat imaging in 6 months, then 1 or 2 years to document stability



# Cryoablation of Benign Tumors

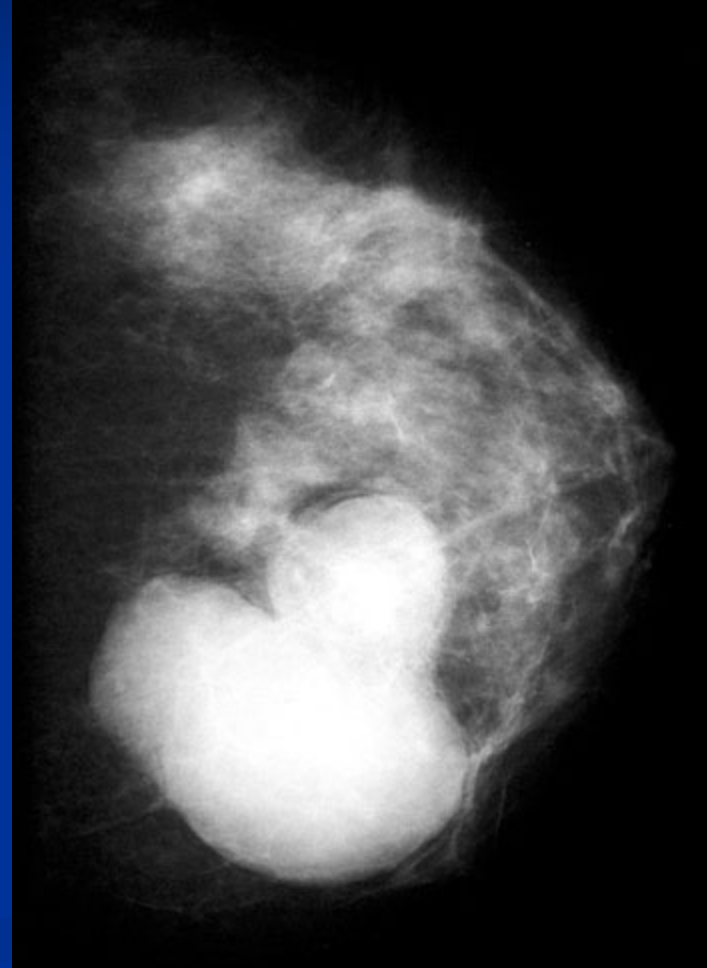
- Percutaneous non-surgical option for treatment of biopsy proven fibroadenomas < 3-4 cm
- Contraindications: < 5mm from skin
- Resolution over next year





# Phyllodes

- Cellular lesion
- Treatment - excision
- Malignant potential
  - Recurrence up to 50%, based on grade



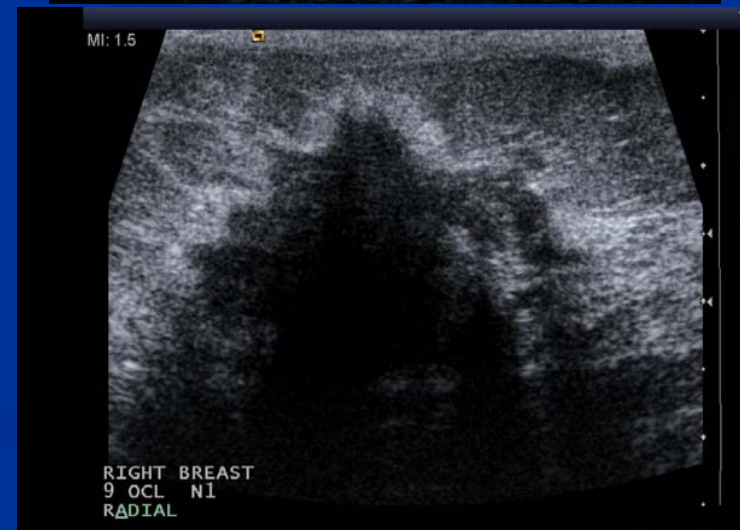
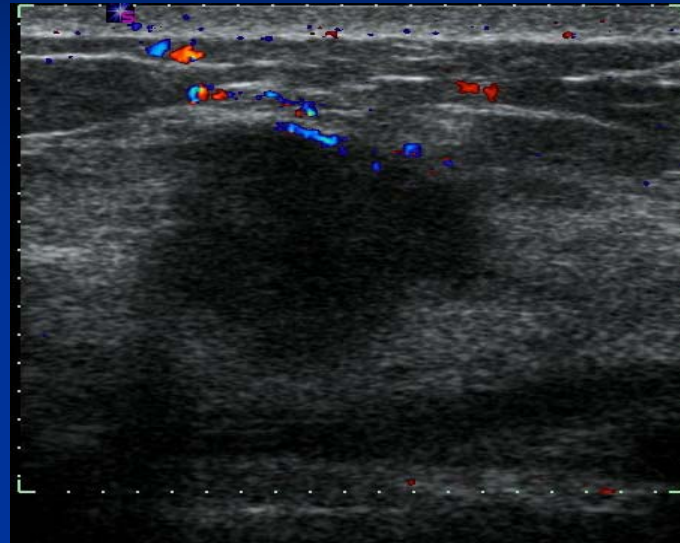
# Lactating Adenoma

- Solid lesion that arises during pregnancy not lactation
- Core biopsy
- Consider resection once breast feeding completed or observation



# Malignant Tumors

- Invasive ductal/lobular
- Multidisciplinary team
  - Surgeon
  - Radiation Oncologist
  - Medical Oncologist
- Surgical options
  - No difference in survival



# Nipple Discharge

- Unilateral vs. bilateral
- Spontaneous vs. manually induced
- Single or multiple ducts
- Cytology controversial

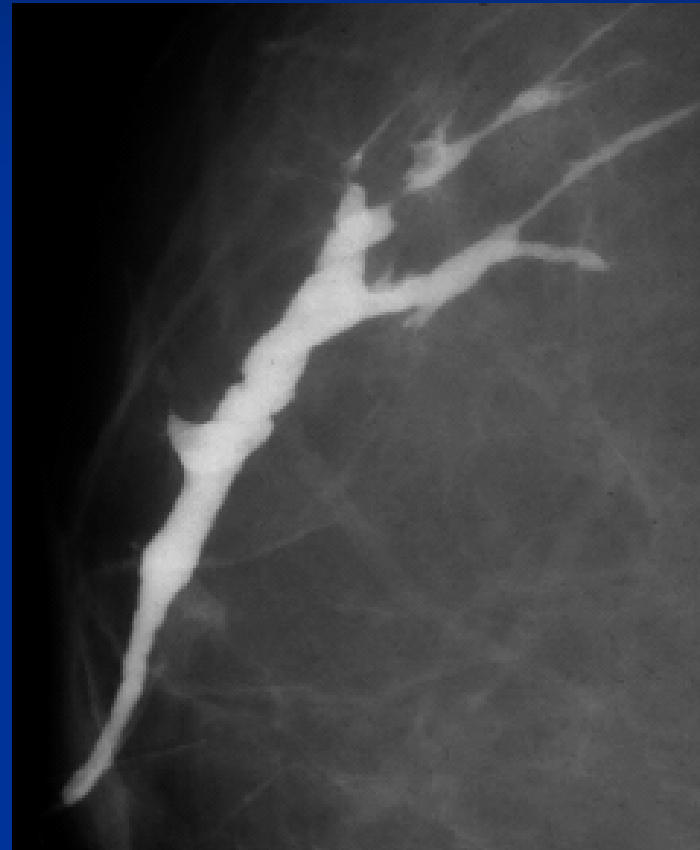


# Bilateral Nipple Discharge

- Physiologic causes
  - Hyperprolactinemia
- Mammary duct ectasia
  - Dilation of the ducts in post-menopausal women
- Do not encourage manipulation

# Nipple Discharge

- So what's important . . .
  - Unilateral, spontaneous, age of onset, (color means nothing)
- Diagnostic films – Mammogram and U/S
- Surgical consultation
- Negative studies indication for ductogram or MRI



# Nipple Discharge

- Intraductal papilloma
  - Small pre-cancerous association 1-3%
- Surgical excision is always recommended
- If films negative very close follow-up



# Nipple Changes

- Is it PAGETS?
- CBE findings – very important, lump?
- Diagnostic mammogram and U/S
- Surgical referral
  - Punch biopsy





# Pearls

- Unilateral recent nipple inversion suspicious
- Nipple always involved in Paget's, disappears in advanced cases
- Failure to resolve signs of inflammation with >10 day course of broad spectrum antibiotics, concern for inflammatory

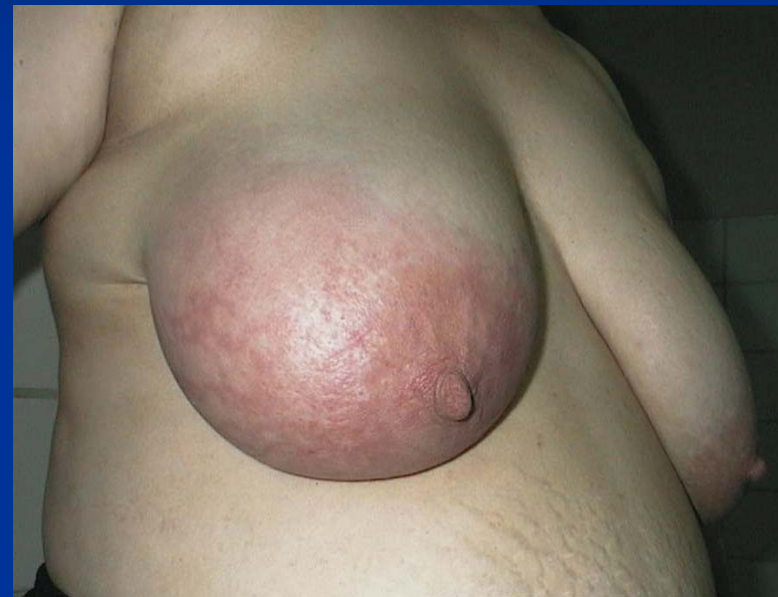
# Mastodynia

- Cyclic vs. non-cyclic
- Duration >3 months, surgical referral
- Diagnostic mammogram & U/S
- Treatment
  - Cessation of caffeine, chocolate
  - EPO: 3000 mg for 8 weeks, taper to 1500 mg
  - Protective Breast Formula, C. Horner M.D.



# Breast Abscess/Mastitis

- Lactational
  - Warm compresses, antibiotics, pumping
- Non - lactational
  - Diagnostic films
  - Aspiration, repeat as needed
  - Broad spectrum antibiotics

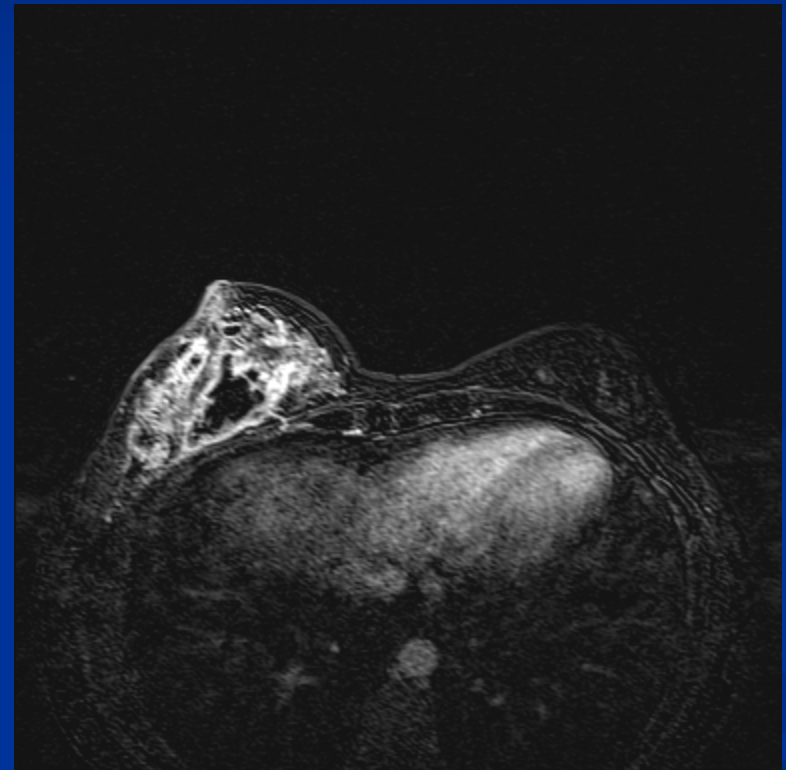
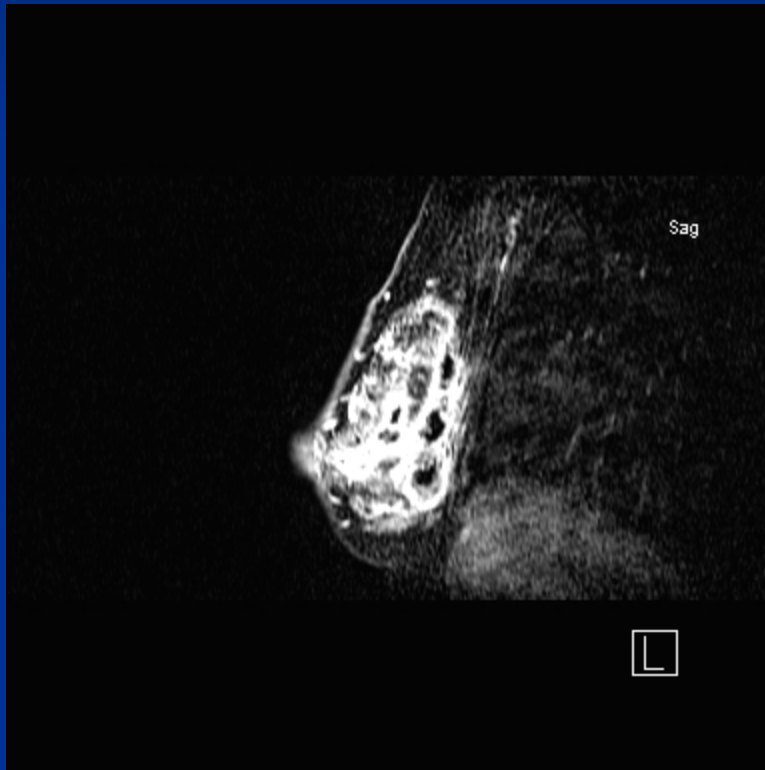


# Breast Abscess/Mastitis

- Treatment
  - Rarely surgical
  - Antibiotics, guided aspirations, high dose steroid taper once negative cultures
- Recurrent or persistent disease
  - Granulomatous mastitis, difficult to treat
  - Surgical & I D referral
- Smoking cessation!!!

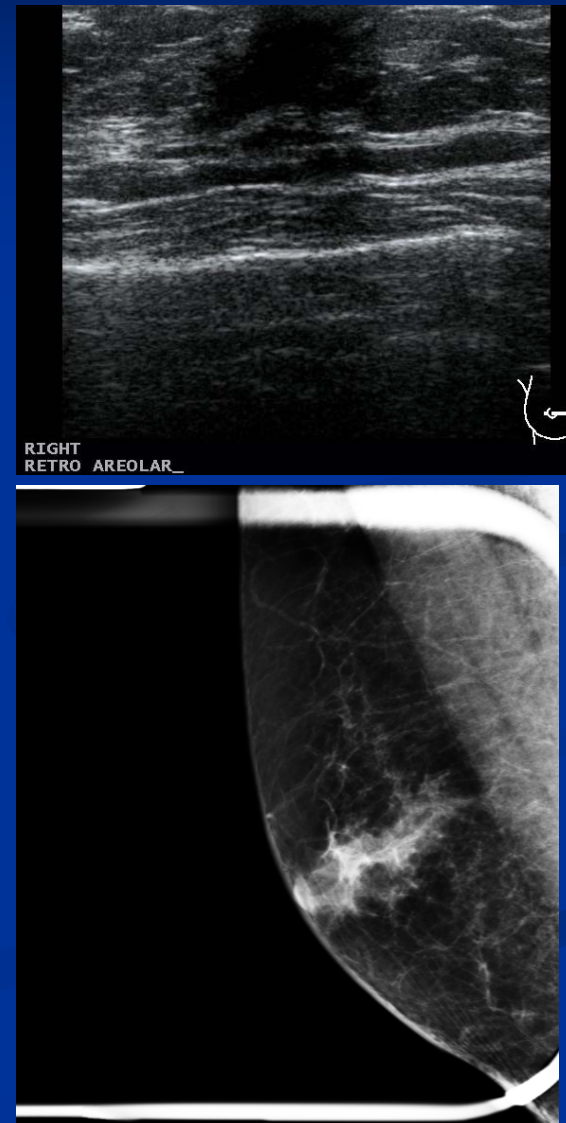


# Granulomatous Mastitis



# Gynecomastia

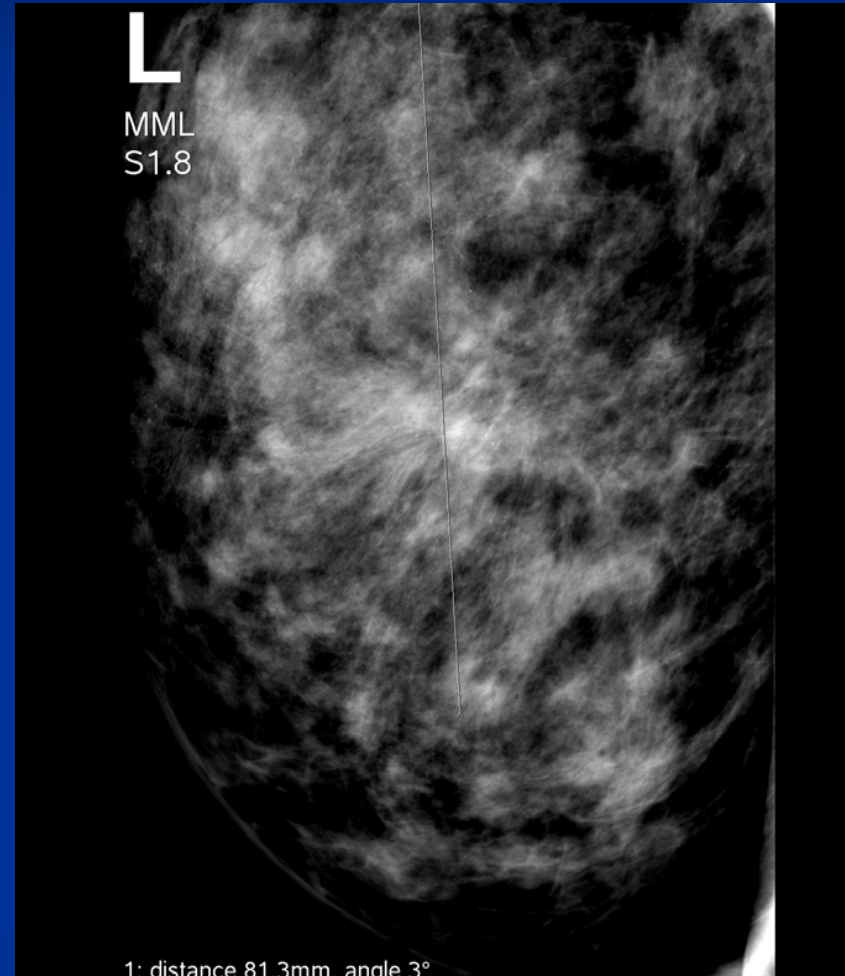
- Symptomatic -diagnostic mammogram & U/S a must!
- Causes: physiologic, pathologic, pharmacologic
- Surgical referral  
Core biopsy, surgical excision or observation





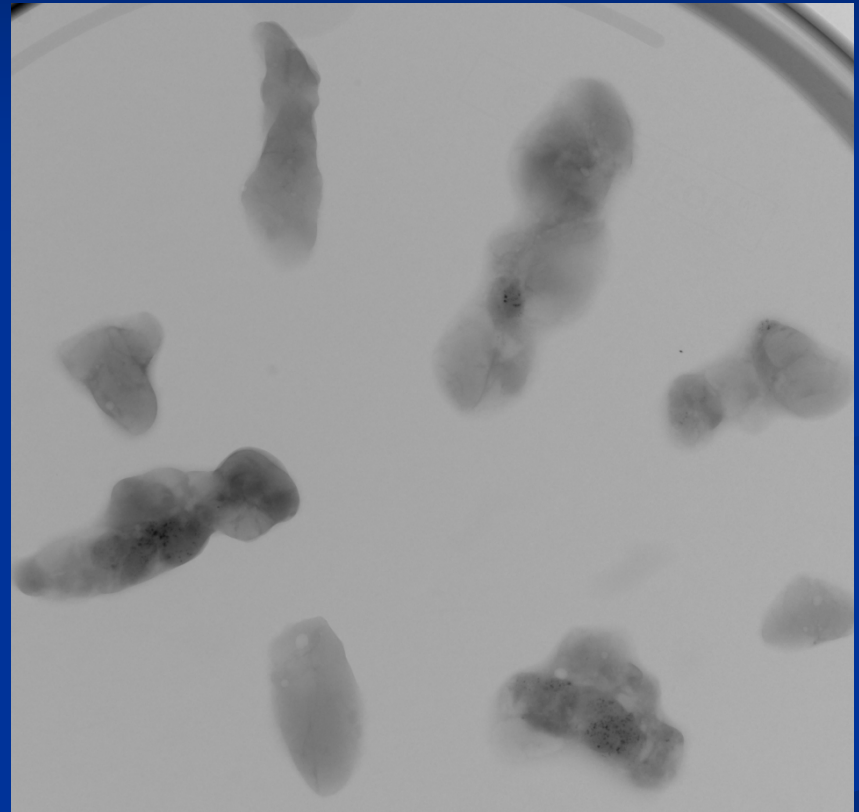
# Abnormal Screening Mammogram

- Additional films: spot compression, oblique views and/or ultrasound
- Biopsy via image guided is standard of care over surgical open biopsy
- Majority negative



# Image Guided Biopsy

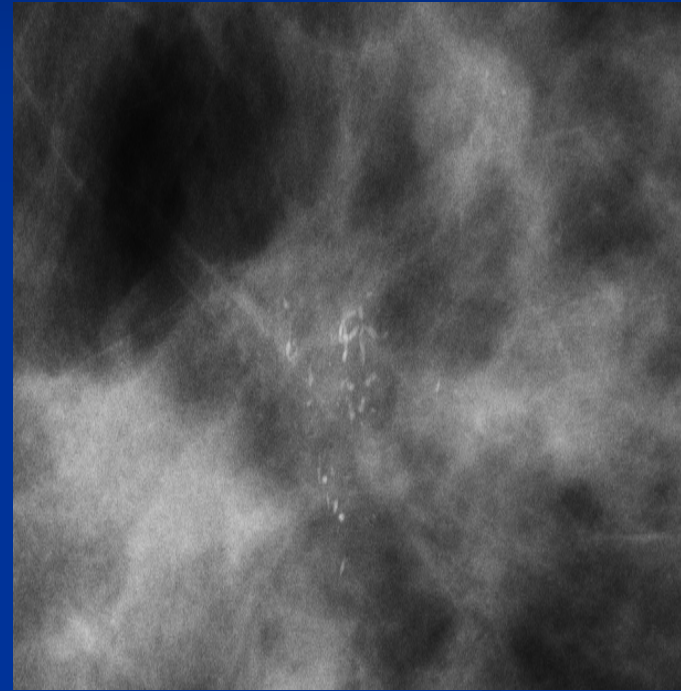
- Stereotactic
  - Must see abnormality in 2 views
  - 6 -8 samples taken w/ 9 or 11 gauge needle
  - clip placed post procedure
- Management





# Abnormal Mammogram

- Calcifications
  - New or increased
- Masses or architectural change
  - Spectrum includes cysts to cancer

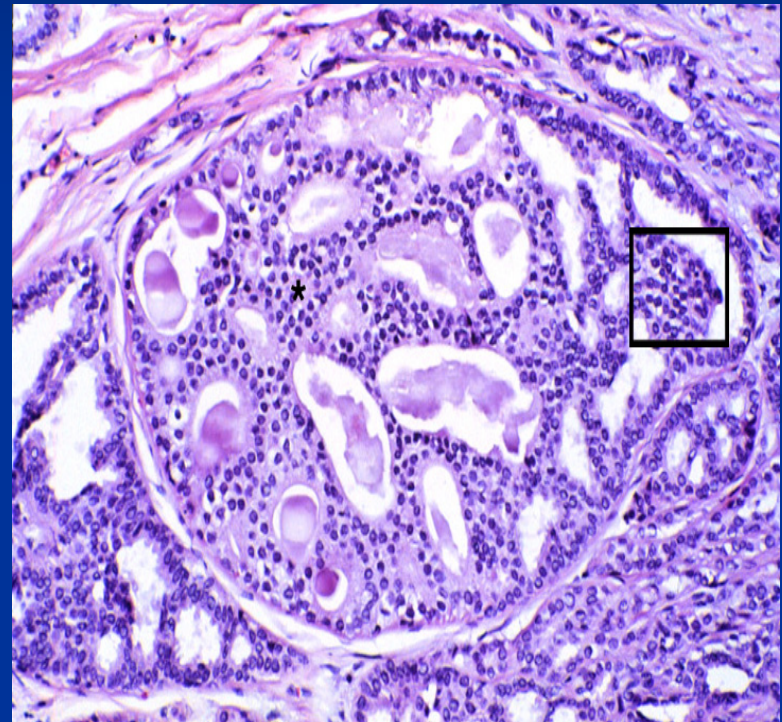


# Abnormal Mammogram

- Non-proliferative breast disease - benign
  - No increased risk
  - Duct ectasia, typical or mild hyperplasia
- Proliferative breast disease - benign
  - Increased risk
  - Atypical cells, papillomas
- Premalignant lesions
  - DCIS or LCIS

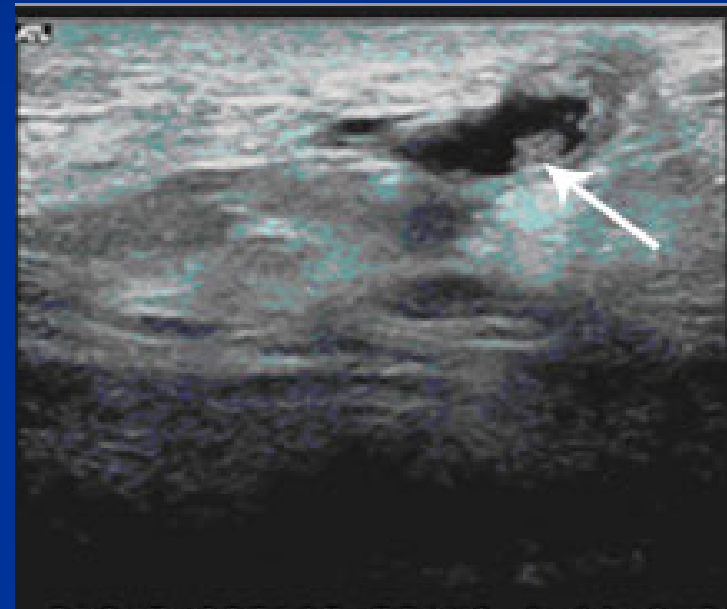
# Atypical Cells

- Ductal, lobular, flat epithelial atypical hyperplasia
  - Surgical excision to r/o pathological upstaging
  - Denotes increased risk of future breast cancer development
- Oncology Referral or high risk clinic for surveillance



# Papillomas

- Benign tumor arising from a lactiferous duct
- May contain areas of atypia
- Surgical excision is recommended



# Screening Alternatives

MRI

- The good and the bad

HALO

Thermogram

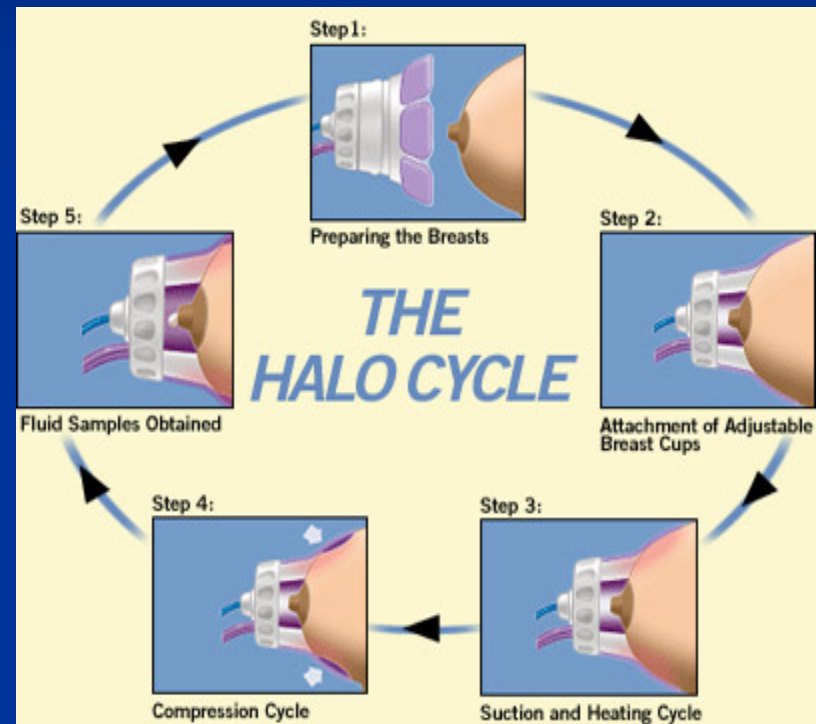
# MRI

- Indications : Lobular cancer, multi-centric disease, assess response to neo-adjuvant chemo, inconclusive films
- High risk evaluation
- Implant integrity, non-contrast



# HALO – Breast Pap Test

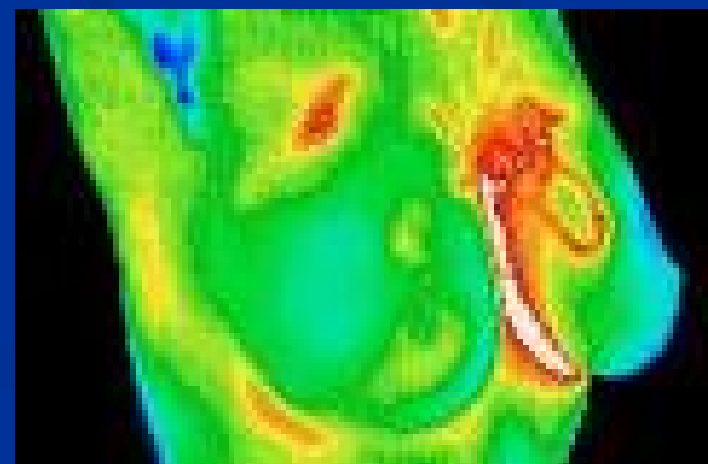
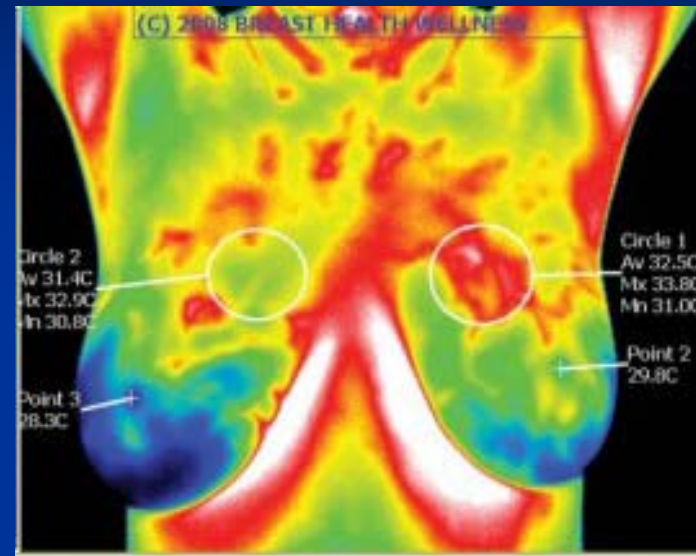
- Nipple aspirate fluid (NAF) for cytological evaluation
- 1% of patients evaluated will reveal atypical cells
- Results inconclusive
- Cost \$85: 65% patients unable to obtain NAF





# Thermography

- Not an alternative to mammogram, in addition
- Thermal, infrared imaging
- Hormonally, temperature influenced
- No standardization of facilities or interpreters
- No biopsy availability or case controls





# High Risk Patient

- Defined as individuals with:
  - Personal risk factors ( ADH, ALH, DCIS, LCIS)
  - Personal history of breast cancer before 50 or bilateral
  - Family history, 1<sup>st</sup> degree relative (before 50 ) or male breast Ca
  - BRCA1 or BRCA2 mutation carrier
  - Personal or family history of ovarian Ca
  - Ashkenazi Jewish ancestry

# High Risk Patient - Pearls

- Referral to multi-disciplinary team of providers
  - If not available, at least medical oncology evaluation for tamoxifen for risk reduction
- Genetic testing is about educating your patient
- Importance of a good and repeat CBE



A physical examination can detect  
a breast cancer the size of a cherry



A screening mammogram can  
detect a cancer the size of a pea

Early detection is vital

*Thank-you*