ABCs of Breast Disease: Actions Before Consult

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Faculty

Donna Lynn Dyess, MD
Professor of General Surgery
University of South Alabama
Mobile, Alabama

ACTIONS BEFORE CONSULT

Workup of Breast Complaints

- **HISTORY**
  - **Chief complaint**
  - **History of present illness**
  - **Review of systems (ROS)**
  - **Past medical history**
  - **Family history**
  - **Social history**

Workup of Breast Complaints

- **Physical exam**
- **Radiographic studies**
- **Interpretation**
- **Biopsy**
- **Management**
- **Follow-up**

Chief Complaint

- **Abnormal mammogram**
- **Mass**
- **Pain**
- **Skin changes – rash, erythema, edema**
- **Nipple discharge**
- **Abnormal size/asymmetry**
- **Fear**

History

- Duration of complaints
- Modifying factors
- Patient age
- Similar previous events

History of Present Illness

- Location
- Quality
- Severity
- Duration
- Timing
- Modifying factors

History of Present Illness

- Associated signs/symptoms
- Identify screening factors for breast health
  - SBE
  - Prior CBE
  - Prior mammograms

Objectives

- Pertinent history
- Pertinent physical findings
- Breast imaging
- Management options
- Breast Cancer

Past Medical History

- Previous breast disease
- Previous breast surgery
  - Biopsy
  - Augmentation
  - Reduction
- Previous breast cancer

Past Medical History

- History of radiation
- Hormones/contraceptives
- Obstetric history of any malignancy
- These historical data help the clinician assess the patient's risk of breast cancer

Family History

- Primary – mother, sister, daughter
- Secondary – grandmother, aunt, cousin
- Each patient, irrespective of family history, merits workup and evaluation as an individual

Family History

- 80% of women who develop breast cancer have NO family history
- 5-10% have a mother or sister with Breast Cancer
- 10-20% have a first-degree or second-degree relative with Breast Cancer

Family History

- The greater the number of relatives and the closeness of the biologic relationship affect the risk

Family History

- First degree relative with breast cancer increases the relative risk
  - One member: 1.5-2.0 X normal population
    - 2.1% if mother diagnosed before age 40
    - 2.3% for sister
    - 2.5% for mother and sister

Family History

- Risk varies with age – the younger the affected relative, the greater the risk posed to relatives
- The strongest effect is for women younger than 50 with a first-degree relative affected before the age of 50

  - Two members: 4-6 X normal population

Workup of Breast Complaints

- History
- Physical exam
  - Inspection
  - Palpation
- Radiographic studies
- Interpretation
- Biopsy
- Management
- Follow-up

Physical Exam

- Establish rapport
- Comfortable room
- Chaperone
- Warm hands

Physical Exam

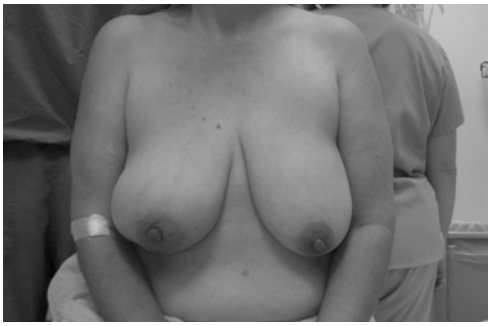
- Patient sitting for inspection
  - Symmetry
  - Contour
  - Skin changes
    - Erythema, dimpling, retraction

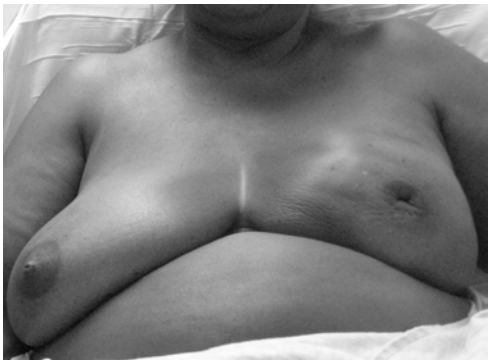
Physical Exam

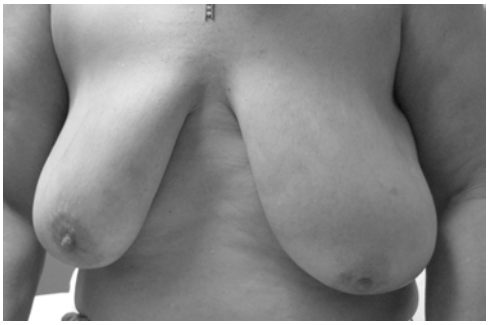
  - Nipple changes
    - Scaling, retraction, inversion
- Compare with previously documented examination

Physical Exam

- Inspection
  - Breast appearance
- Symmetry







Physical Exam

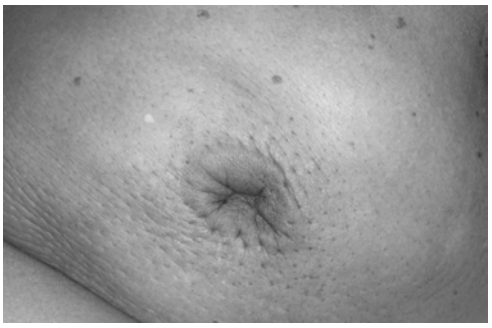
- **Breast appearance**
  - **Symmetry**
  - **Skin changes**
    - **Tethering**

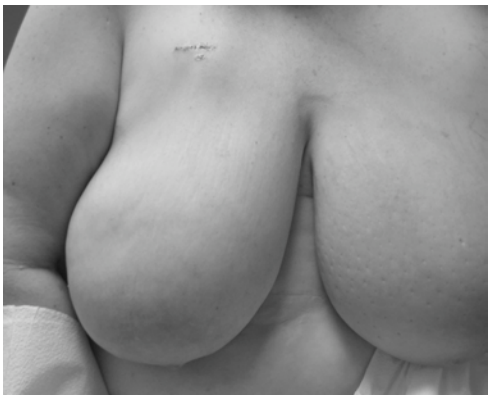
Tethering

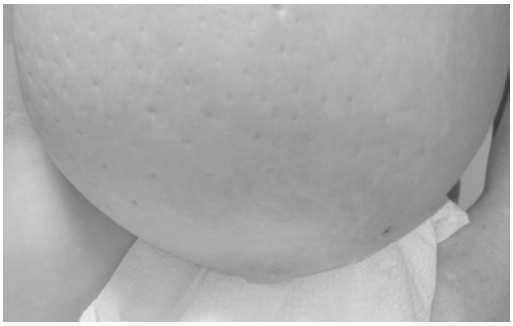
- **Picture**

Physical Exam

- **Breast appearance**
  - **Symmetry**
  - **Skin changes**
    - **Tethering**
- **Skin edema**
  - **Peau d'orange**

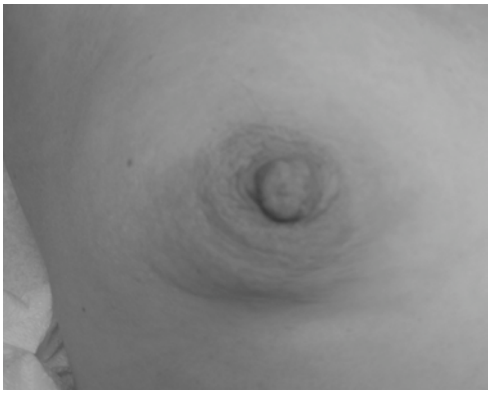


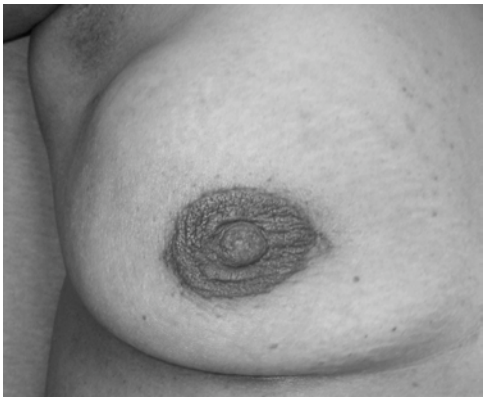




Physical Exam

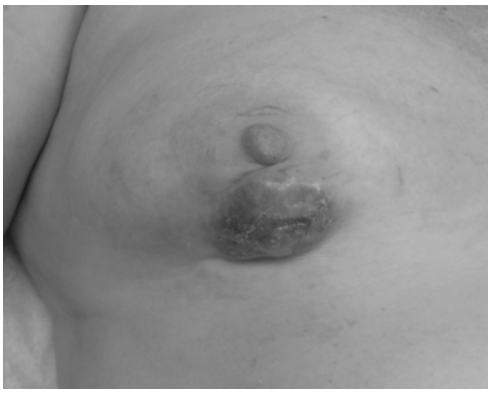
- Breast appearance
  - Symmetry
  - Skin changes
    - Tethering
    - Skin edema
    - Peau d'orange
    - Skin erythema





Physical Exam

- Breast appearance
  - Symmetry
  - Skin changes
    - Tethering
    - Skin edema
    - Peau d'orange
    - Skin erythema
    - Skin ulceration



Physical Exam

- Palpation
  - Patient sitting for palpation of lymph nodes
    - Axilla
    - Supraclavicular
    - Infraclavicular

Physical Exam

- Palpation
  - Patient supine for breast exam, arm up
  - The breast is a pentagon
    - Midaxillary line
    - $5^{th}/6^{th}$ ribs/inframammary fold
    - Sternum
    - Clavicle
    - Back to Midaxillary line/latissimus dorsi

Physical Exam

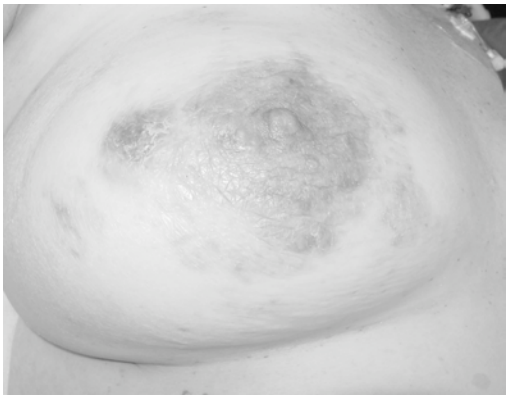
- Palpation
  - Dominant mass
  - Nodular vs. smooth
  - Symmetry

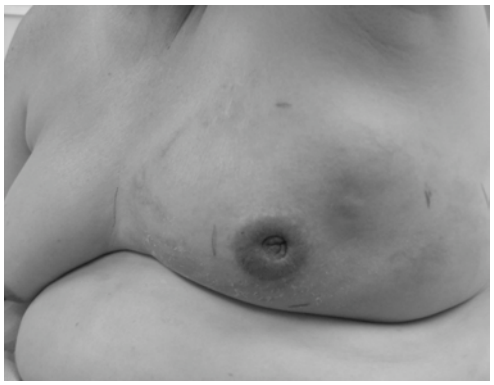
Dominant Mass

- Location
- Mobile vs. fixed
- Tender vs. non-tender
- Size
- Texture
  - Soft, firm, hard

Physical Signs Associated with Advanced Breast Cancer

- Breast mass
- Retraction
- Edema
- Axillary mass
- Scaly nipple
- Tender breast





CBE: Clinical Breast Exam

- Identify abnormalities that warrant further evaluation
- CBE alone cannot distinguish benign from malignant processes

Workup of Breast Complaints

- History
- Physical exam
- Radiographic studies
  - Screening
  - Diagnostic
- Interpretation
- Biopsy
- Management
- Follow-up

Radiographic Studies

- Screening
  - Patient has no signs or symptoms
    - Mammography is the only breast screening modality
      - Yearly after the age of 40
      - For positive family history, 5-10 years earlier than family members age of disease

Radiographic Studies

- Mother gets cancer at 39, start mammography at age 29
- Diagnostic
  - To workup signs or symptoms

Radiographic Studies

- Mammography
- Ultrasound
- MRI
- Galactography/ductogram
- CT
- PET

When to Order Radiographic Studies

- Mammography
  - If appropriate age (>40)
- Screening
- Diagnostic study to work up sign/symptom when patient has not had a screening study in previous 6 months

When to Order Radiographic Studies

- Ultrasound
  - Not a screening study
  - Diagnostic study for the evaluation of
    - Mass on clinical exam
    - Mass on screening mammogram
    - Pain
      - Looking for cystic changes

When to Order Radiographic Studies

- MRI
  - Not a screening study
  - Diagnostic study for the evaluation of
    - Clinical finding that cannot be easily interpreted on mammogram or ultrasound

When to Order Radiographic Studies

- Strong family history
- Implants
- Determine if patient with breast cancer is a candidate for breast conservation

When to Order Radiographic Studies

- PET
  - Not a screening study
  - Diagnostic study for the evaluation of
    - Detection of metastatic disease in newly diagnosed patients with increased index of suspicion

When to Order Radiographic Studies

- Detection of metastatic or locally recurrent disease in patients with history of breast cancer

Workup of Breast Complaints

- History
- Physical exam
- Radiographic studies
- Interpretation
- Biopsy
- Management
- Follow-up

Interpretation

- History
- Physical exam
- Radiographic studies

Management of Specific Breast Complaints

Mammogram

Screening Study if Age Appropriate

BI-RADS

- Breast
- Imaging
- Reporting
- And
- Data
- System

BI-RADS

- 0 Incomplete
- 1 Normal/negative
- 2 Benign
- 3 Probably benign
- 4 Suspicious
- 5 Highly suggestive of malignancy
- 6 Known biopsy proven malignancy

Screening Mammogram – Appropriate Action

- Patient sent for screening study

  1 Normal/negative

  2 Benign

ROUTINE SCREENING SCHEDULE

Screening Mammogram – Appropriate Action

- Refer to surgeon

  4 Suspicious

  5 Highly suggestive of malignancy

  6 Known biopsy proven malignancy

BI-RADS

- 0 Incomplete
  - Requires additional studies
- 1 Normal/negative
  - Routine screening schedule
- 2 Benign
  - Routine screening schedule

BI-RADS

- 3 Probably benign
  - Short interval follow-up
  - 4 Suspicious
  - Biopsy should be considered
- 5 Highly suggestive of malignancy
- 6 Known biopsy proven malignancy

Screening Mammogram – Appropriate Action

- Patient sent for screening study

  3 Probably benign

SHORT INTERVAL FOLLOW-UP

Short Interval Follow-up

- Read the mammogram report
- Follow-up report recommendations
- Interval is typically 4-6 months

Workup of Abnormal Mammographic Finding

- BIRADS 3
- Probably benign – short interval follow-up
  - Follow-up imaging in 4-6 months
  - Inform patient that "likely benign" however merits close follow-up

Workup of Abnormal Mammographic Finding

- Refer any patient who does not want to wait
- Refer any patient with suspicious findings on clinical exam

Imaging Center Actions

- Funded patient
  - Interval film is scheduled
  - Patient is sent a reminder card
- ABCCEDP patient
  - Interval film is scheduled
  - Provider is sent a request for the voucher

Imaging Center Actions

- Non-funded patient
  - Provider is responsible for ordering the interval study

My Recommendations

- Interval follow-up in provider's office
  - Order follow-up imaging if not already done

Management of Specific Complaints: Breast Mass

- Premenopausal
  - Consider cyst or fibroadenom
- Postmenopausal
  - Consider cancer

Management of Specific Complaints: Breast Mass

- Benign
  - Well defined, mobil
- Cancer
- Hard, irregular, different from surrounding tissues

Breast Mass

- Mammogram +/- ultrasound

Breast Mass

- Patient younger than 40 years

  ULTRASOUND
- Patient 40 years or older

  MAMMOGRAPHY

  ULTRASOUND

Breast Mass

- Results of imaging
  - 4 or 5
    - Refer to surgeon
  - 3
    - Interval imaging
  - Refer to surgeon if clinically suspicious

Breast Mass

- BI-RADS 2
  - Observe if clinical mass seen and correlates with benign mass
    - Fibroadenoma
    - Cyst

Imaging: Mass is a Cyst

- Observe – interval exam
- FNA – Fine Needle Aspiration
  - Aspirate cystic fluid – CYST
  - Aspirate solid mass – submit for cytology
  - Radiology to aspirate under ultrasound

FNA Biopsy

- Cyst
  - Benign appearing fluid – discard
  - Bloody fluid – submit for cytology
  - If results of FNA and radiographic studies suggests benign, follow-up in 3 months

FNA Biopsy

- Cytology results
  - Fibrocystic changes
    - Repeat clinical exam in different point in menstrual cycle
  - Fibroadenoma
    - Repeat clinical exam in 3-6 months

FNA Biopsy

- Non-diagnostic
  - Repeat FNA or clinical exam in 3 months

FNA Biopsy

- Solid
  - Submit for cytology
    - Clinical impression
    - Radiographic impression
    - Cytology impression
- If any one impression is suspicious, refer to surgeon for definitive diagnosis

Breast Mass

- Bi-rads 1 – normal imaging
- Mass not seen on imaging
- Reexamine patient

REFER TO SURGEON IF CLINICAL EXAM WARRANTS

Pain

- Cyclic or non-cyclic
  - Cyclic is normal before menopause or in postmenopausal women on HRT
  - Non-cyclic pain – usually cyst or fibrocystic changes
- Diffuse or focal

Pain

- Bilateral or unilateral
- Associated mass
- Was hormone therapy recently initiated?
- Is there a history of recent trauma?

Pain

- Mammogram +/- ultrasound

Pain

- Relieve symptoms
- Reassurance
- Non-narcotic analgesics
- Support bra
- Elimination of caffeine
- BREAST CANCER IS RARELY ASSOCIATED WITH PAIN

Nipple Retraction

- Duration?
  - Longstanding or bilateral nipple inversion is insignificant
- Palpable mass or mammographic abnormality?
- Unilateral?

Skin Changes

- Duration?
- Palpable mass or mammographic abnormality?
- Unilateral?
- Inflammation -- antibiotics
  - No response – consider inflammatory carcinoma

Nipple Discharge

- Duct Ectasia
- Intraductal Papilloma
- Carcinoma
- Discharge characteristics
- History and physical exam

Characteristics of Discharge

- Nature of discharge – serous or bloody
- Association with mass
- Unilateral or bilateral
- Single or multiple ducts
- Spontaneous or must be expressed
- Relation to menses
- Premenopausal or postmenopausal

Characteristics

• Benign	• Think cancer
– Serous	– Bloody
– No mass	– Mass
– Bilateral	– Unilateral
– Multiple ducts	– Single duct
– Expressed	– Spontaneous
– Premenopausal	– Postmenopausal

Nipple Discharge – Benign

- Bilateral discharge – physiologic
  - Premenses – green/brown
  - Fibrocystic disease
- Milky discharge – Galactorrhea
  - Multiple ducts
  - Check prolactin level

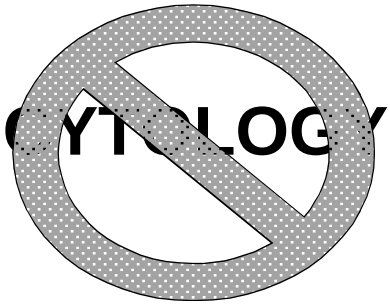
Benign Appearing Discharge

- Non-bloody
- No mass
- Mammogram (if indicated) – not suspicious

OBSERVE – REEXAMINE 3-4 MONTHS

Nipple Discharge – Suspicious

- Refer to surgeon
  - Abnormal mammogram
  - Bloody discharge
  - Suspicious mass



Breast Cancer

- Risk factors
  - Age
  - Family history
  - Early menarche
  - Late menopause
  - Age at birth of first child
  - Nulliparous
  - Obesity

Management Of Breast Cancer

- Tissue diagnosis
- Workup for metastatic disease
  - CXR, Bone scan, labs
  - CT for advanced disease
- Surgical management
- Chemotherapy
- Radiation
- Hormones
- Follow-up

Breast Cancer

- Noninvasive
  - Comedo
  - Noncomedo
  - Cribriform
  - Solid
  - Extensive
- Invasive
  - Ductal
    - Medullary
    - Papillary
    - Nos – not otherwise specified
    - Tubular
  - Lobular

Breast Cancer

- Noninvasive ductal
- Noninvasive lobular
- Invasive ductal
- Invasive lobular

Breast Cancer

- Noninvasive
  - Does not spread to lymphatics
    - 4% nodal involvement
  - Does not metastasize
- Treat the breast – not the axilla
  - Simple mastectomy OR Lumpectomy/radiation
    - NO CHEMOTHERAPY

Breast Cancer

- Invasive
  - Potential to spread to lymphatics
  - Potential to metastasize
  - Treat the breast
    - Mastectomy or Lumpectomy/radiation

Breast Cancer

- Evaluate the axilla – Complete axillary dissection or sentinel node biopsy
- SYSTEMIC CHEMOTHERAPY
- HORMONES – Tamoxifen and Arimidex

Surgical Management

- Breast conservation
  - Size of tumor relative to breast
  - Radiotherapy
  - Contraindicated in multicentric disease
- Mastectomy
  - Reconstruction usually delayed
  - Few need radiation

Chemotherapy

- INVASIVE DISEASE
- ALMOST EVERYONE WHO DOESN'T GET CHEMO

Chemotherapy

- Co-morbidities suggest death from another diagnosis before breast cancer kills
- Aged
- Patient refusal
- Small (<0.5cm) invasive disease
- Noninvasive disease

Radiation

- WHO GETS RADIATION
  - Breast conservation patients – lumpectomy
  - Locally advanced disease
  - Greater than 3 nodes positive
  - Close or involved margins

Tamoxifen

- Breast cancer prevention
- Treatment of receptor positive cancer
- Treat for 5 years
- Side effects of uterine malignancy, DVT

Arimidex

- Treatment of receptor positive cancer
- No data about prevention
- Used only in postmenopausal patients
- Higher risk of osteoporosis than tamoxifen
- More expensive than tamoxifen

Management of Breast Cancer

- Tissue diagnosis
- Workup for metastatic disease
  - CXR, bone scan, labs
  - CT for advanced disease
- Surgical management

Management of Breast Cancer

- Chemotherapy
- Radiation
- Hormones
- Follow-up

Follow-up

- Yearly clinical breast exam
- Monthly self breast exam
- Yearly mammogram after age of 40

ACTIONS BEFORE CONSULT

ABCs

- History
- Physical examination
- Breast imaging

THANK YOU!