

Breast Mass Workup – Surgery Clinic

1- Epidemiology – Very common complaint and leading to testing, biopsies and surgery.

- Differential: Acute abscesses, benign physiologic masses, benign tumors, cancer.
- Benign masses: cysts, galactoceles (peripartum / after cessation of breastfeeding), papillomas, fibroadenomas, phyllodes tumor, and fibrocystic nodules
- Breast Cancer is the most common malignancy in US women, 123 cases per 100,000 women per year in 2006. 230,480 in 2011; Breast cancer deaths: 40,480
- Prevalence - 2.5 million women in the US

2- Important History Items:

- Last menstrual cycle, relationship to menses, termination of lactation,
- Tenderness, Response to NSAIDs
- Trauma,
- Smoking
- Family history of cancer

3- Signs and symptoms:

- Breast abscess - Painful mass, FeverSwelling
- Galactocele - Mass during or after lactation
- Fibroadenoma and benign tumors - Usually persistent painless mass
- Fibrocystic nodules - Tender nodules wax and wane w/ menstrual cycle
- Papilloma - Bloody nipple discharge

4- Physical Exam

- Any erythema, edema, and a tender dominant mass favor breast abscess.
- A tender mass without erythema and edema favors a fibrocystic nodule or cyst.
- A discreet mobile nontender nodule favors a benign tumor (fibroadenoma).

5- Tests

- Ultrasound for all ages
- Mammogram for patients over 30 or 10 years younger than the age at which a first-degree relative developed breast cancer
- MRI for dense breasts where the clinical suspicion for cancer is high and mammogram and/or ultrasound are inconclusive.

6- Surgery

- Ultrasound-guided core needle biopsy for solid masses

- Ultrasound-guided aspiration for fluid-filled masses, simple abscesses
- Simple cysts typically do not require intervention unless palpable / symptomatic
- Incision and drainage for large or complex breast abscesses
- Pathologic evaluation or cytology of fluids.
- The most important intervention is an accurate diagnosis.

7- Issues for Referral

- Nonresolving breast cellulitis
- Persistent mass
- Lack of concordance between core biopsy and exam
- Any mass with chest wall/skin fixation
- Recurrent breast abscess

8- Indications for surgery:

- Phyllodes tumors - excision with margins to define and reduce recurrence
- Fibroadenoma, papilloma, hamartoma, lipoma - excision
- Breast abscess - Surgical incision and drainage for complex or large abscesses.
- Fibrocystic nodules and galactoceles
 - excision not recommended unless concern for missed malignancy
 - maintenance of nursing is recommended.

9- Follow-Up Recommendations

- Fibroadenomas, papillomas, and hamartomas require 6-month follow-up imaging with mammogram and ultrasound to document stability at a 6-month interval for 1–2 years.
- If a fibroadenoma in a postmenopausal woman enlarges, it should be removed.
- Hamartomas, lipomas, and papillomas have excellent prognosis.
- A breast abscess treated definitively is unlikely to recur.
- Galactoceles usually resolve without surgical intervention
- Cysts seen on mammography will regress, more than 1/2 by the first year and more than 2/3 by the second year, leaving only 12% after 5 years.
- If evidence of malignancy, then urgent referral to Oncology and consider chemo/radiation needs vs lumpectomy / mastectomy. Treatments options vary by tumor type / grade / stage.

10- Complications

- Error in diagnosis is the major complication and can be avoided by a core biopsy and concordance evaluation.

- References:

Up To Date - Diagnostic evaluation of women with suspected breast cancer,
Esserman, L; Joe, B, 2013