

Breast Problems

Assumption

The student understands:

1. Benign changes within the breast and their relevance to breast cancer surveillance.
2. The topographic and structural anatomy of the breast.
3. The hormonal changes that affect the breast.

Goal

The student will be able to describe the diagnosis and management of a patient with benign and malignant breast conditions.

Objectives

By the end of the core surgical clerkship, the student will be able to:

1. Discuss the importance of the patient's history, including an assessment of the patient's risk factors for the development of breast cancer.
2. Discuss key physical examination findings for common breast problems (including the presence of nipple discharge).
3. Discuss the following office procedures, including their diagnostic/therapeutic implications of:
 - a. Fine needle aspiration versus core needle biopsy.
 - b. Cyst aspiration.
 - c. Incision and drainage.
4. Discuss the importance of mammography and ultrasound in the evaluation of breast complaints and describe key imaging features.
5. Describe the appropriate diagnostic work-up for common breast problems in various age groups taking efficiency and cost into consideration.
6. Describe diagnosis and treatment of benign breast conditions.
7. Describe clinical and pathologic staging and management of breast cancer.

Problems

For each of the following problems, answer the following questions:

- What pertinent questions regarding patient's history and current symptoms should be asked?
 - What diagnostic tests are the best options for this patient?
 - What is the most likely diagnosis?
 - What special considerations should be given to a pregnant patient considering a biopsy?
1. Patient # 1 - A 35-year-old female, 36 weeks pregnant, was referred by her obstetrician for surgical evaluation of a right upper outer quadrant breast lump. The patient has a family history of breast CA.
 2. Patient # 2 - A 65-year-old woman was referred by her family practitioner for a surgical evaluation of skin dimpling in the lower outer quadrant of her left breast.

Breast Problems (continued)

Skills

1. Conduct a focused history and physical exam related to breast problems (including palpation of lymph node regions).
2. Describe location and character of nipple discharge.
3. Describe technique of needle aspiration (for cyst and cytology).
4. Describe technique of incision and drainage.
5. Understand how to deliver bad news **Refer to Communication of Bad News module.*

Teaching Hints

1. Emphasize the following aspects:
 - a. Age and family history
 - b. Emotional aspects of illness and patients' choices
 - c. Difference in histories (consistent with abscess, papilloma, benign lesion, malignancy)
 - d. Breast self-exam (use breast exam teaching aid – commercial models available)
 - e. Imaging of benign and malignant lesions
 - f. Need to biopsy any non-cystic breast mass
 - g. Role of surgery and when to consult a surgeon for further diagnosis and treatment
 - h. Surgical options including reconstruction (partial mastectomy, total or simple mastectomy, sentinel node mapping and biopsy, axillary dissection, modified radical mastectomy, etc.)
 - i. Postoperative care and potential complications of surgical management
 - j. Role of radiotherapy
 - k. Role of chemotherapy (adjuvant or neoadjuvant)
 - l. Role of hormonal therapy
 - m. Role of genetic counseling and testing
 - n. Surveillance and follow-up after surgical treatment
2. If sufficient number of students, consider dividing cases between groups, and have one group present their "patient" along with treatment to the other group(s).
3. Compare and contrast 25-year-old female patient with a breast mass with a 55-year-old female patient with a breast mass.
4. ASE members might consider using the ASE PowerPoint teaching modules (abnormal mammogram, breast mass, fibroadenoma, or other virtual patient cases) located at: <https://surgicaleducation.com/teaching-modules>.

Prevention

Discuss evidence-based guidelines for the following:

1. Screening mammography
2. Breast clinical and self-examination
3. Chemoprophylaxis
4. Hormone replacement therapy
5. Role of genetic screening

Special Considerations

1. Congenital breast abnormalities and breast problems in the pediatric patient (phyllodes tumors and juvenile fibroadenoma, gynecomastia, breast asymmetry)
2. Approach to breast cancer screening and treatment in the geriatric population
3. Evaluation of male breast masses