Educational Topic 40:
Disorders of the Breast

Rationale: Breast disorders and concerns are common. They are often distressing and may indicate the presence of serious disease.

Intended Learning Outcomes:
A student should be able to:

- List factors that place individuals at risk for breast disorders
- Describe symptoms and physical examination finding of benign or malignant conditions of the breast
- Demonstrate the performance of a clinical breast examination
- Discuss the steps in the evaluation of common breast complaints: mastalgia, mass, nipple discharge
- Discuss initial management options for benign and malignant conditions of the breast

TEACHING CASE

CASE: A 56-year-old woman G0P0 woman made an appointment to see her gynecologist because of a small lump in her right breast that she has been able to feel for 2 months. She has not had prior breast problems and does not have a family history of breast cancer. There are no apparent skin changes, asymmetry or skin dimpling. Axillary or supraclavicular lymph nodes are not palpable. Breasts are symmetric, diffusely cystic and non-tender. There is a firm area approximately 1 cm in diameter with indiscreet borders at the 9 o’clock position on her right breast. The area is slightly different in consistency than the rest of the surrounding tissue. The patient’s mammogram revealed dense breast tissue, but no mammographic abnormalities.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:
Competencies addressed:
- Patient Care
- Medical Knowledge
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice
1. What is the proper technique to perform a breast exam?
   - Inspection (with patient sitting): examination of contour, symmetry, skin changes or nipple retraction
   - Palpation (in upright and supine positions) of breast, areola and nipples
   - Examination of axillae and supraclavicular fossae

2. What are common risk factors for breast cancer?
   - The commonly quoted risk of breast cancer (1 in 8 women) represents a cumulative lifetime risk.
     - For a woman aged 50-59 years, the lifetime risk of having a breast cancer diagnosis is 1 in 36, while for a woman-aged 70-79 years, the risk increases to 1 in 24.
   - Risk factors include
     - Patient age
     - Smoking
     - Prior personal history
     - Mammographic breast density
     - Family history
     - Genetics (BRCA 1 and 2 mutations)
     - Nulliparity
     - Late childbearing (first pregnancy >30 years)
     - Early menarche
     - Late menopause
     - Fibrocystic changes with atypia
     - History of breast radiation
     - Hormone exposure
     - Obesity
     - Excessive alcohol use (> 2 drinks/day)

3. What is your next step in this patient's management?
   - A persistent palpable breast mass requires evaluation. Mammography alone is not sufficient to rule out malignancy in a patient with a palpable breast mass.
     - Ultrasonography, magnified mammographic imaging or MRI of the breast may provide additional information.
     - Further, these studies may identify cystic structures or variations in breast architecture that account for the palpable abnormality.
     - When cyst aspiration is performed, the fluid may be discarded if it is clear (not bloody) and the mass disappears following the aspiration. Otherwise, the patient should have a breast biopsy.
     - Solid masses require histologic diagnosis in most cases. Fine-needle aspiration or stereotactic needle biopsy may be an alternative to open breast biopsy.
     - If breast cancer or specific benign condition is not detected by fine-needle aspiration or needle core biopsy, open biopsy is necessary.

4. What are some common benign breast disorders?
   - Fibrocystic changes: most common benign breast conditions; commonly present as cyclic, bilateral, pain and engorgement
     - Non-proliferative lesion (RR of developing breast ca 1.0)
• Proliferative lesion (hyperplasia) without atypia (RR 1.5-2.0)
• Atypical hyperplasia (RR 8-10)
• Fibroadenoma: second most common benign breast condition
  • Fibrous and glandular tissue
  • Occurs in young women
  • Firm, painless, mobile mass
• Intraductal Papilloma
  • Commonly found in peri and menopausal patients
  • Bloody, serous or turbid nipple discharge
  • Excisional biopsy is often needed
• Galactocele
  • Cystic dilatation of a duct filled with thick, milky fluid
  • Secondary infection causes mastitis
  • Needle aspiration is often curative

REFERENCES


CDC Breast Cancer Screening http://www.cdc.gov/cancer/breast/basic_info/screening.htm