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Ronald F. Martin

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Melissa L. Kaptanian

Management of Mastalgia **929**

Ayat ElSherif and Stephanie A. Valente

Breast pain is a common symptom in most women during their lifetime, and many times is self-limited. Mastalgia is categorized into 3 main groups: cyclic, noncyclic and extramammary. A good history, examination and targeted imaging can help to delineate the underlying cause of mastalgia and therefore guide treatment options. Diet, medications, stress, hormonal fluctuations, and an ill-fitting bra can be contributing factors for physiologic causes of mastalgia. Breast cancer is rarely a cause but should be excluded. Reassurance, support, dietary changes, nonsteroidal anti-inflammatory drugs and occasionally hormonal medications are options to help with improving breast pain.

Lobular Neoplasia **947**

Lilia Lunt, Alison Coogan, and Claudia B. Perez

Lobular neoplasia (LN) is a term that describes atypical epithelial lesions originating in the terminal duct-lobular unit (TDLU) of the breast, including atypical lobular hyperplasia (ALH) and lobular carcinoma in situ (LCIS). LN is both a risk factor and nonobligate precursor to invasive breast cancer. A diagnosis of LCIS is associated with a 7-to-10-fold increased risk of breast cancer compared with the general population. When classic LN is diagnosed on a core needle biopsy (CNB), the patient may proceed with either increased screening or excisional biopsy of the lesion. Physicians should counsel patients diagnosed with LN on the risk of developing invasive carcinoma and inform them of the current screening and chemoprevention recommendations to reduce risk.

Intraductal Papillomas **965**

Shannon N. Tierney

The most common manifestation of papillary breast disease is intraductal papilloma (IDP). As breast disease management becomes more refined, increasing attention has been directed at determining which IDPs require excision, and which can be monitored. This article will discuss the most common factors currently impacting personalized decision-making.

Management of Common Complications of Lactation: The Breast Surgeon's Role in Examining the Science and Debunking Old Myths 973

Katrina B. Mitchell and Helen M. Johnson

Breast surgeons are well poised to promote evidence-based recommendations for lactation-related breast disorders and clarify existing misconceptions in traditional care. Surgeons can resolve lactational fluid collections and avoid milk fistula development during drainage and/or other procedures on the breast. Using principles of surgical wound management, they can provide effective care of nipple trauma. They can distinguish between inflammatory and infectious mastitis and promote delicate tissue handling to prevent breast injury and phlegmon. Finally, breast surgeons can debunk the myth of fungal infections occurring on the highly vascularized nipple and recognize common presentations of conditions such as dermatitis.

Management of Gynecomastia and Male Benign Diseases 989

Manish M. Karamchandani, Gabriel De La Cruz Ku, Bradford L. Sokol, Abhishek Chatterjee, and Christopher Homsy

Gynecomastia is a common benign breast disease involving abnormally increased mammary gland tissue that can affect men of all ages. It is usually due to a hormonal imbalance without a definitive underlying cause (idiopathic), or secondary to medications/drugs, systemic disorders, or malignancy. Gynecomastia is often self-limiting, and its management is watchful waiting. Other male benign breast diseases, such as cysts, lipomas, seromas, infections, and pseudoangiomatous stromal hyperplasia, should be worked up in a similar manner and often require surgical drainage or excision.

Benign Breast Disease: Periareolar Mastitis, Granulomatous Lobular Mastitis, and Lymphocytic or Diabetic Mastopathy 1007

Rachel E. Sargent and Stephen F. Sener

Periareolar mastitis, granulomatous lobular mastitis, and lymphocytic or diabetic mastopathy are benign inflammatory breast conditions that require specialized knowledge of the pathophysiology to reduce the morbidity from surgical management.

Management of Stromal Lesions 1017

Jingjing Yu and Kari Kansal

Breast stromal lesions include fibroadenomas, phyllodes tumors, pseudoangiomatous stromal hyperplasia, periductal stromal tumors, and lipomas. Most of these lesions are benign and can be managed with observation or surgical excision. Phyllodes tumors, however, are subcategorized into benign, borderline, and malignant. Benign phyllodes tumors may be removed without a margin of breast tissue while borderline and malignant phyllodes tumors need a wide excision with a greater than 1 cm margin. Because malignant phyllodes tumors have a poor prognosis, efforts should be made to discuss their treatment in a multidisciplinary setting and enrollment in a clinical trial should be considered.

- Management of Radiographic Lesions of the Breast** 1031
Lisa Wiechmann and Lauren Canter Friedlander
- Breast imaging plays an essential role in the diagnosis and management of breast disease. From screening asymptomatic patients to evaluating clinical abnormalities on diagnostic studies, breast imaging provides critical information to the breast surgeon. Available imaging studies include those that have been proved over many years, like mammography, and those that take advantage of increasingly sophisticated technology, like breast MRI. Image-guided biopsy provides a safe means of evaluating indeterminate findings on imaging. Understanding how these tools are best used can help breast surgeons provide the best care for their patients.
- Dermatological Conditions of the Breast** 1043
Srinidhi Pulusani, Emily Jones, and Alyssa D. Throckmorton
- There are many dermatologic conditions that can involve the skin of the breast including malignancy, infections, and inflammatory conditions. These are summarized here including presentation and management options.
- Juvenile Benign Diseases of the Breast** 1065
Rona Norelius
- The developmental phases of the breast are fluid and spread throughout prenatal, postnatal, and adolescent life. Developmental derangement during each phase can lead to disease formation. Before reaching adulthood, most abnormalities of the breast are benign in nature and can be characterized as congenital disorders, developmental disorders, or acquired disorders. Surgical intervention early in life is rarely warranted.
- Management of Nipple Discharge** 1077
Rick D. Vavolizza and Lynn T. Dengel
- Nipple discharge is the third most common breast-related complaint but is rarely the presenting symptom of breast cancer. Distinguishing patients with physiologic versus pathologic nipple discharge, and treating the later according to the underlying pathologic condition is of utmost importance. Nipple discharge is categorized as lactational, physiologic, or pathologic. Physiologic nipple discharge (galactorrhea) is typically caused by hyperprolactinemia due to medications (ie, antipsychotics), pituitary tumors, and endocrine disorders. When a suspicious radiologic lesion is identified, pathologic assessment of the lesion is indicated. Patients with pathologic nipple discharge should be referred to a breast surgeon for definitive treatment and follow-up.
- Management of Cystic Conditions** 1089
Holly Ortman, James Abdo, Rachel Tillman, and Anna Seydel
- Cystic conditions are the most common disorder of the breast. Simple cysts are not malignant and do not require intervention. Patients with symptomatic simple cysts can undergo elective aspiration, and typical

cyst fluid can be discarded. Bloody fluid should be sent for cytology. Cysts with thick walls, thick septations, or solid components have a risk of malignancy and should undergo biopsy.

Management of Mastitis, Abscess, and Fistula**1103**

Howard C. Snider

Peripheral nonlactational abscesses behave like other soft tissue abscesses and resolve with drainage and antibiotics. Subareolar abscesses tend to recur or develop fistulae between obstructed ducts and the border of the areola and are usually seen in women in their thirties who have a history of smoking or a congenitally cleft nipple. The underlying cause of subareolar abscesses and fistulae is the obstruction of terminal ducts due to keratin plugging caused by squamous metaplasia of the ducts. Successful resolution of the problem requires excision of the terminal ducts in and just below the nipple along with the correction of nipple deformity, if present.