

Discrete lumps in the breast

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The main causes of discrete lumps in the breast are listed in Summary box 58.1. Sometimes a lump appears in the breast evanescent lump. It is caused by an inflammatory mass of periductal mastitis; the lump, pain and tenderness all disappear together. Sometimes, a cyst or a galactocele may rupture; the lump disappears but pain and tenderness appear. The cyst fluid or milk leaking in the stroma may induce inflammation, causing pain and tenderness. Summary box 58.1 Causes of discrete breast lumps (Table 58.1). - - Breast cysts Breast cysts are common in the 35- to 55-year-old age group and usually present as a painless lump. Several causative factors contribute as part of ANDI, including lobular involution, increased secretion, ductile obstruction, loss of stroma, hyperoestrogenaemia and hormone replacement therapy. Cysts are often multiple, may be bilateral and can mimic malignancy. They typically present suddenly and cause great alarm; prompt diagnosis by ultrasonography and aspiration under ultrasound guidance provides immediate relief. A smooth-walled cyst without any solid component in its wall is classified as BI-RADS 2 and requires only observation without biopsy. The presence of a solid component in the cyst wall is classified as a complex cyst and necessitates a core biopsy to rule out cystadenocarcinoma. This should be distinguished from a complicated cyst, which is defined as a cyst containing intracystic floating debris that moves within the cyst with change of posture.

Nodularity 0 1 3 4 Figure 58.13 The Lucknow–Cardiff breast nodularity scale. A visual analogue scale for nodularity: an ordinal scale. 0, normal or non-nodular; 1, minimal; 2, mild; 3, moderate; 4, severe. Benign Malignant Non-Fibroadenoma Carcinoma in inflammatory of the breast (invasive, DCIS) Ductal papilloma Malignant phyllodes Phyllodes Hamartoma Galactocele Breast cyst Haematoma Traumatic fat necrosis Inflammatory Breast abscess (acute in inflammatory, tubercular) Antibiotoma Periductal mastitis (evanescent mass) Granulomatous mastitis Parasitic: hydatid, leishmaniasis Fungal: aspergillosis, blastomycosis, Cryptococcus, Histoplasma 2

Treatment A solitary cyst or small collection of cysts may be aspirated if associated with pain or inflammation. If the cyst(s) resolve(s) completely, and if the fluid is not bloodstained, no further treatment is required. Cytological examination of cyst fluid is not useful. If there is a residual lump or if the aspirate is blood stained, a core biopsy or excision for histological diagnosis is advisable. A complicated cyst with associated infection may be treated with a short course of antibiotics.

Galactocele Galactocele is rare and usually presents as a solitary subareolar milk-filled cyst seen during or just after lactation. It disappears completely and is usually cured by a single aspiration. If it recurs, it may be reaspirated or a nylon strand (2/0) may be passed to clear the blocked duct.

Complications of galactocele are non-resolution because of inspissated material and calcification. Surgical excision is rarely indicated. Lactating mothers should be encouraged to continue breastfeeding.

Fibroadenoma A fibroadenoma is the most common cause of a breast lump in women aged 15–25 years. It arises from hyperplasia of a lobule and usually grows to 2–3 cm in size. It is surrounded by a well-defined capsule. A clinically typical fibroadenoma, confirmed

on ultrasonography, may be observed without a biopsy. A biopsy should be obtained if the patient is over 25 or if there are atypical features on ultrasonography. Regression with antioestrogen drugs has been observed with tamoxifen and ormeloxifene (58.3). Giant fibroadenomas occasionally occur during puberty. They are over 5 cm in diameter, often rapidly growing and can be enucleated through a submammary incision (Figure 58.14). The RR of cancer with fibroadenoma ranges from 1.5–1.7 if simple to 3.4–3.7 in the presence of epithelial hyperplasia. Complex fibroadenoma with a family history has an RR for cancer of 3.0–4.0, particularly lobular carcinoma. Indications for surgical excision are: age over 30 years; suspicious features on imaging, such as microlobulation; atypia on histology; size >5 cm; family history of breast cancer; and the patient's preference. Excision of fibroadenoma in the elderly should include a rim of normal tissue as it may contain malignancy or a phyllodes tumour.

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- - Phyllodes tumour Previously known as cystosarcoma phyllodes, these benign tumours usually occur in women over the age of 30 years but can appear in younger women and present as a large, sometimes massive, tumour with an unevenly bosselated surface (Figure 58.15). Occasionally, the overlying skin is ulcerated owing to pressure necrosis. Despite their size, phyllodes tumours best wall and rarely infiltrate the skin remain mobile on the chest until late. It is a true mixed neoplasm comprising both epithelial and mesenchymal elements and resembling a fibroadenoma. Some have a higher mitotic index with infiltrating borders and may rarely metastasise via the bloodstream. Phyllodes tumours are classified according to histological behaviour into benign (mitotic rate <4 per 10 high-power fields [HPF]), borderline (mitotic rate 4–9 per 10 HPF) and malignant (mitotic rate >10 per 10 HPF) tumours.

- Treatment Treatment is by wide local excision (WLE) with a 2-cm margin along with the overlying skin and underlying pectoralis major muscle because of a high incidence of local recurrence.

Figure 58.14 Giant fibroadenoma. (a) Clinical picture; (b) excised specimen; (c) submammary (Gaillard Thomas) incision. Figure 58.15 Phyllodes tumour of the left breast.

Massive tumours, recurrent tumours and those of the malignant type require mastectomy. Postoperative radiotherapy may be offered to women with recurrent or malignant phyllodes tumours. Systemic chemotherapy may be offered for malignant phyllodes.

Figure 58.16 Accessory nipple with congenital inversion of the normal nipple.

Revision #1

Created 2025-12-31 15:21:42 UTC by Omar Ayman

Updated 2025-12-31 15:21:43 UTC by Omar Ayman