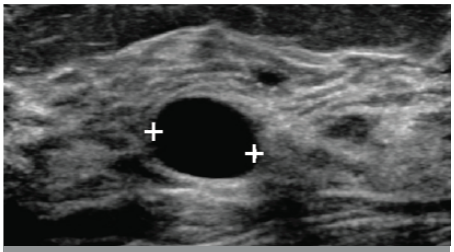
PRP® Diagnostic Imaging
IMAGING INSIGHTS
JANUARY 2025

MANAGEMENT OF CYSTS AND LESIONS OF BENIGN APPEARANCE ON BREAST ULTRASOUND

SIMPLE CYSTS

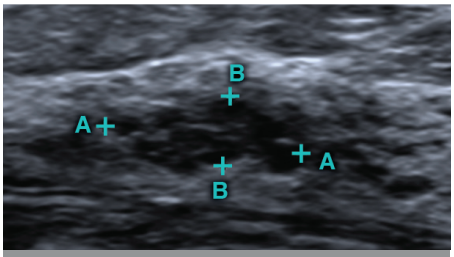
Simple cysts are completely anechoic, thin walled and well circumscribed. No follow-up or biopsy is required. Aspiration can be performed for symptomatic relief of pain.



SIMPLE CYSTS

FIBROCYSTIC CHANGE

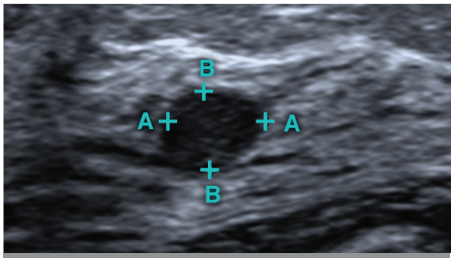
Fibrocystic change is characterised by its microcystic appearance (clusters of tiny cysts). There is no need for biopsy or follow-up.



FIBROCYSTIC CHANGE

COMPLEX CYSTS

Complex cysts are hypoechoic with a low-to-moderate level of internal echoes and may have internal septations. They can be thick walled and sometimes ill defined. There is no internal vascularity or solid component.
Biopsy is not required if stable compared to previous imaging. Biopsy of probable complex cysts is usually with fine needle aspiration (FNA) and may be indicated if there has been increase in size. New possible complex cysts with atypical appearances such as ill-defined borders, irregularity or that are taller than wide should be biopsied, especially in high-risk patients. A six-month, follow-up ultrasound is an alternative approach for monitoring complex cysts of overall benign appearance. Lesions that have been stable over a sufficient time period (>12months) do not require further follow-up.

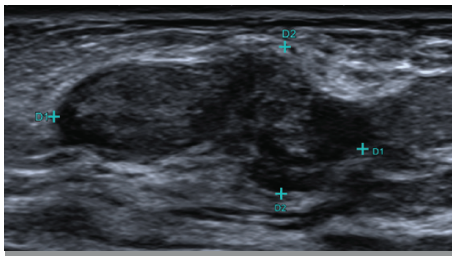


COMPLEX CYSTS

HYPOECHOIC LESIONS OF SOLID APPEARANCE

These lesions display a low-to-moderate level of internal echoes. They are well circumscribed but can be lobulated. Internal vascularity confirms a solid nature; however, this feature is often absent. Hence, these solid lesions can be difficult to distinguish from complex cysts. The most common solid lesion is a **fibroadenoma**. These may be indistinguishable on ultrasound from a fat lobule/entrapped fat (a normal structure in the breast), papilloma, or tubular adenoma. Management is the same as stated above for a "complex cyst". Except:

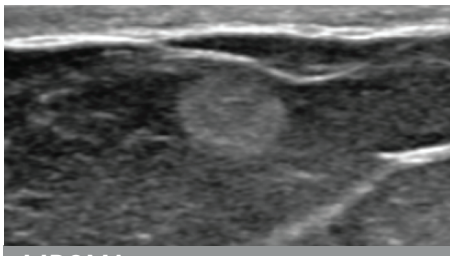
- Core biopsy is almost always preferred, unless very small or technically difficult.
- Interval growth of >50% in 12 months warrants biopsy.
- Lifetime annual follow-up for those with multiple presumed fibroadenomas.
- Usually surgically removed when >30mm.



FIBROADENOMA

HYPERECHOIC LESIONS

These are lesions of high echogenicity, usually lipomas or fat necrosis. There is generally no need for biopsy or follow-up. The only exceptional circumstance is when there is a central hypoechoic component that may represent a cancer inciting a surrounding echogenic reactive inflammatory response.



LIPOMA