



WOMEN'S IMAGING – DIAGNOSING BREAST DUCTAL CARCINOMA IN SITU (DCIS)

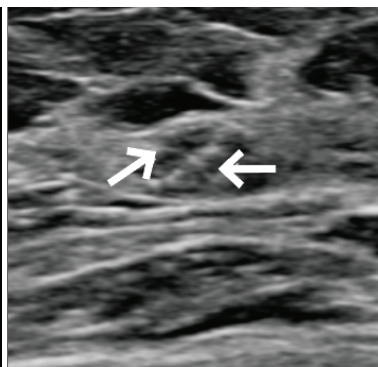
CLINICAL HISTORY

This 53 year-old female with a history of previously excised left breast DCIS in 2015 presented to PRP Diagnostic Imaging for her annual surveillance imaging. Bilateral 2D mammogram, 3D digital tomosynthesis and breast ultrasound were performed and compared with her previous studies.

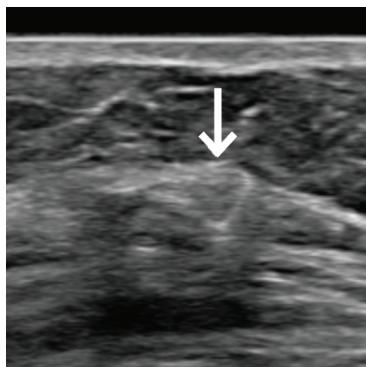
IMAGING FINDINGS



1. There was a new subtle cluster of microcalcification in the left breast upper outer quadrant with indeterminate features.



2. On ultrasound, there was a subtle area of hypoechoic change with several tiny microcalcifications visible.



3. This was biopsied under ultrasound guidance, and a TWIRL clip was deployed at the site of biopsy.



4. The post-biopsy mammogram confirmed concordance of the mammographic and ultrasound findings.

DISCUSSION

DCIS is a malignancy confined within the ducts of the breast with no invasive component. Over time, DCIS can progress to invasive ductal carcinoma; therefore, early detection is important to reduce morbidity and mortality.

DCIS most commonly manifests as microcalcifications that are best detected and characterised on mammography. While microcalcifications are often not visible on ultrasound, occasionally they are visible making ultrasound-guided biopsy possible.

In this case study, the clip placed with the ultrasound biopsy allowed confirmation that the ultrasound lesion corresponded to the mammographic abnormality. This clip will also be useful later to guide surgery for accurate excision assisted via image guided hookwire localisation or radioguided occult lesion localisation (ROLL).

PRACTICE POINTS

- Most types of breast microcalcifications are benign; however, new, increasing or indeterminate/suspicious microcalcifications require work up with or without biopsy to assess for DCIS.
- DCIS most commonly manifests as microcalcifications that are best detected and characterised on mammography. Microcalcifications are usually not visible on ultrasound.
- When not visible on ultrasound, a mammographic (also called stereotactic) guided biopsy is required.

Stereotactic Breast Biopsy is available at the following PRP sites:

North Gosford, Eastwood, Castlehill, Norwest Private, Cumberland, Orange