



Thank you to PRP North Gosford for contributing this article.

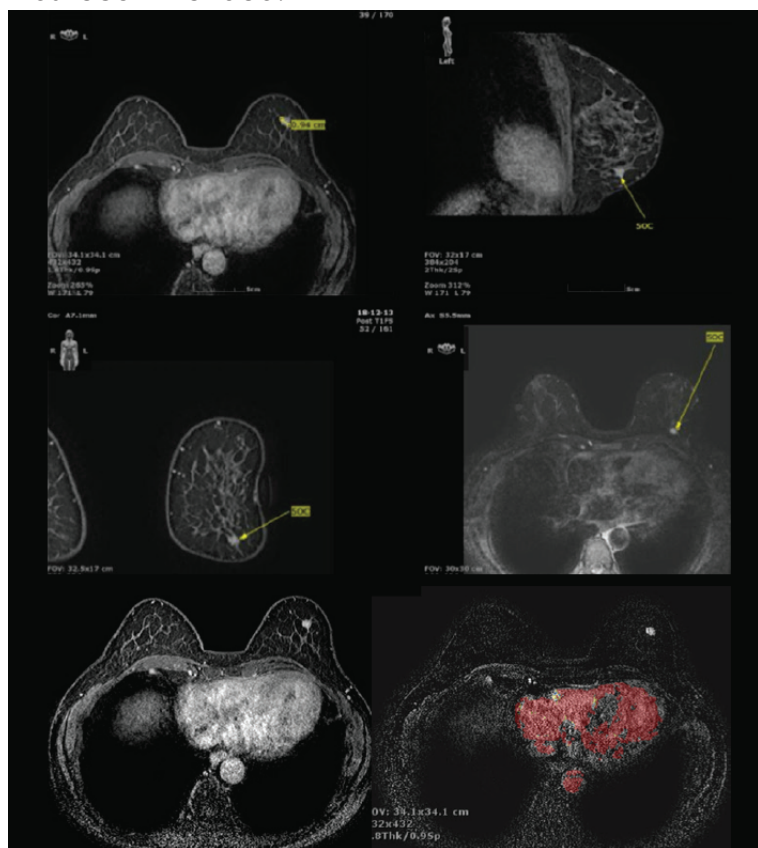
BREAST MRI

CLINICAL HISTORY

60-year-old female with family history of breast cancer. Previous mammogram and ultrasound were negative. Breast MRI for further evaluation was requested.

MRI FINDINGS

MRI showed an irregular enhancing focus in the left breast at approximately 5 o'clock, 4cm from the nipple. Correlation with targeted breast ultrasound was recommended.



TARGETED BREAST ULTRASOUND

An area of architectural distortion was noted in the left breast, corresponding to the area of irregular enhancement noted on MRI. This could not be seen on previous mammograms or ultrasound. Ultrasound guided biopsy was recommended.



ULTRASOUND-GUIDED BREAST BIOPSY

A core biopsy diagnosed invasive ductal carcinoma.



DISCUSSION

MRI is well established in breast imaging, in addition to mammography and ultrasound. MRI is the most sensitive modality in the detection of breast cancer. It uses no ionizing radiation and its sensitivity is not affected by breast density. Some of the important uses for breast MRI include:

- Screening of high-risk women, including those with a family history of breast and/or ovarian cancer or genetic mutations (BRCA I or BRCA II).
- Assessment of dense breast tissue.
- Evaluation of hard-to-assess areas found on mammography and/or ultrasound.
- Evaluation of the extent of new breast cancer lesions.
- Assessment of lumpectomy sites.
- Monitoring and surveillance of breast cancer treatment.
- Evaluation of suspected rupture of breast implants.
- Investigation of cancer in axillary nodes, with an unknown primary tumour.
- Investigation of nipple discharge.
- Further investigation of equivocal biopsy results.
- Evaluation of palpable breast masses with negative imaging studies.