



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

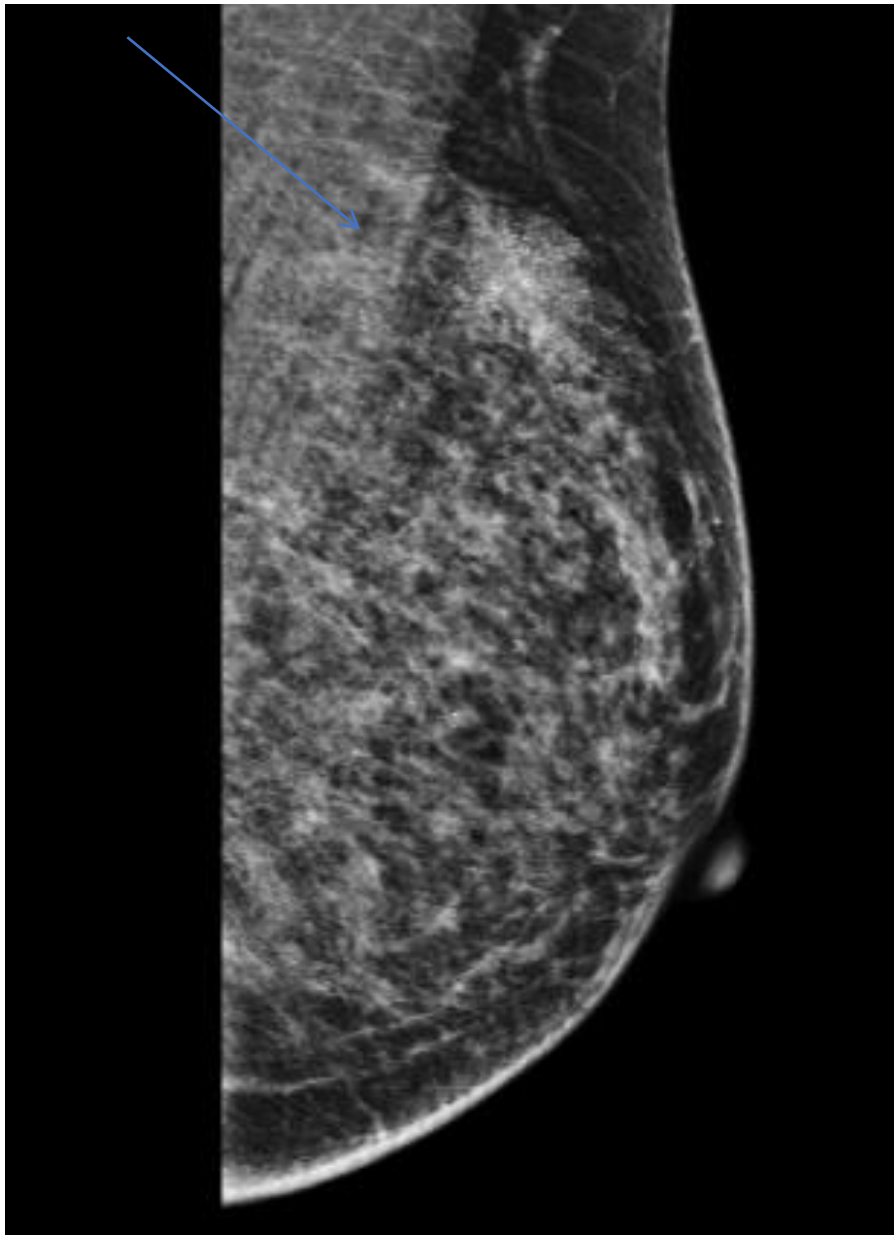
Apollo Hospitals, Bengaluru
Contributor of the Series

Case 1

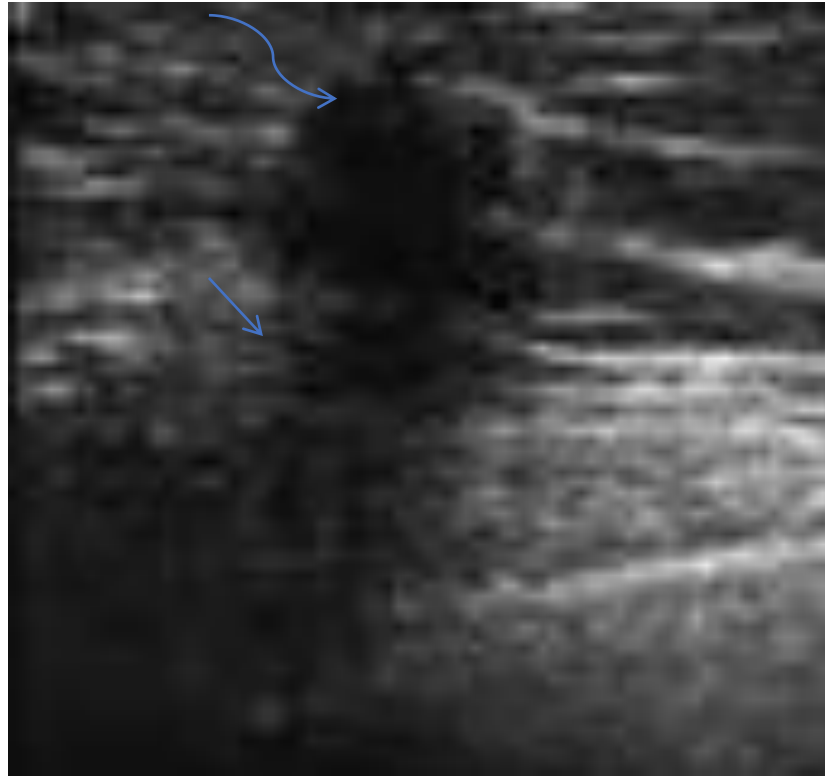
- 42 year old premenopausal lady
- Lump in the LEFT breast of 4 months duration

- DETAILED CLINICAL HISTORY
- CLINICAL EXAMINATION OF THE BREAST AND AXILLAE
- MAMMOGRAPHY
- ULTRASOUND
- HISTOPATHOLOGY

- DETAILED CLINICAL HISTORY AND CLINICAL EXAMINATION OF THE BREAST AND AXILLAE
- No family history of cancer
- O/E : approximately 1 cm lump in the LEFT breast upper and outer quadrant
- No axillary lymph nodes
- NO OTHER SIGNIFICANT FINDINGS



LEFT MLO - mammography



Ultrasound scan of breast

Digital mammogram demonstrates a spiculated density with architectural distortion in the upper outer quadrant of the LEFT breast (straight long arrow).

A high resolution ultrasound scan demonstrates a spiculated hypoechoic mass (curved arrow) with distal acoustic shadowing (short straight arrow)

Biopsy of the breast lump

- FNAC – can give diagnosis but will not provide tissue for immunohistochemistry
- Trucut biopsy: more suitable as it provides tissue to do immunohistochemistry

Procedure of core biopsy

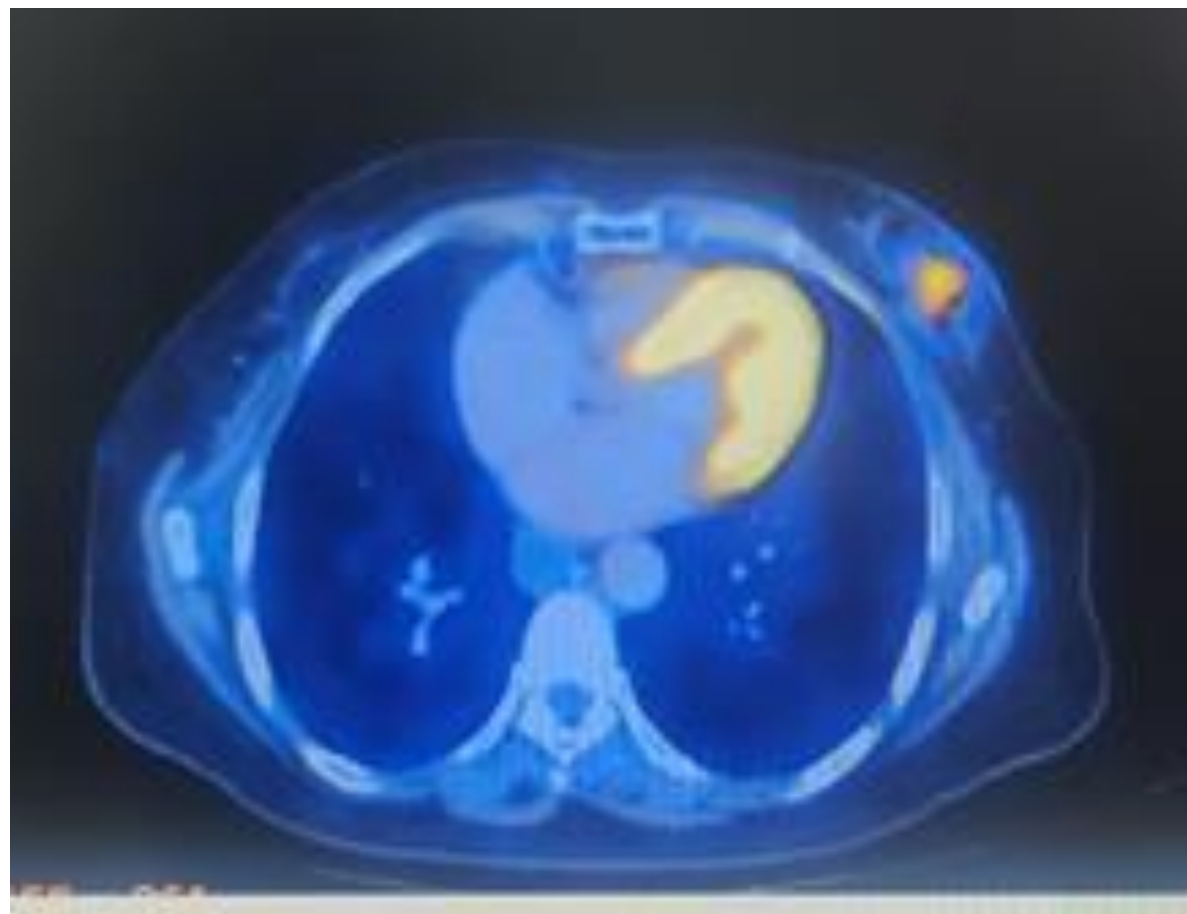
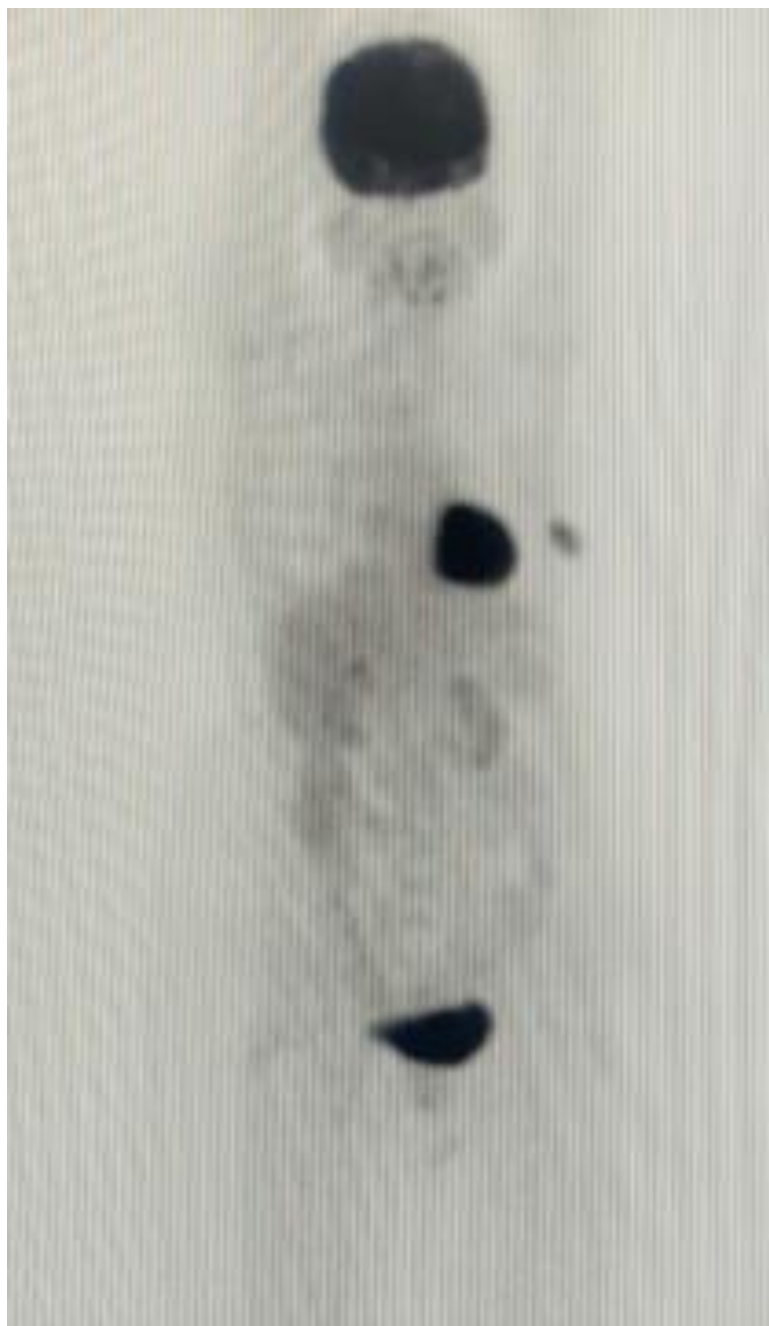
- Done under local anesthesia
- Outpatient procedure
- Preferred method is an image guided core biopsy using a 16G or 18 G gun
- Sufficient sample to be obtained for histopathology, and assessment of receptor status
- High resolution ultrasound of axillary lymph node to look for suspicious metastatic node and if positive (any one or more - cortex thickening, focal or diffuse-more than 3 mm, excessively hypoechoic cortex, hilar effacement, non-hilar cortical vascularity, compression of hyperechoic medulla, size more than 10 mm in short axis and height to length ratio of more than 0.5), core biopsy under ultrasound guidance
- Imaging tool for guidance is generally and most commonly an ultrasound when the lesion is well seen on ultrasound; however a stereotactic biopsy using mammography or an MRI guided biopsy may be performed if the lesions are seen only on these modalities (screening MRI is performed on select high risk women).

Biopsy results

- Infiltrative ductal carcinoma (IDC), grade II
- ER8+/PR7+/Her2 3+; Ki 67 2-25%

Staging imaging modalities

- Incidence of distant metastases is extremely low in early breast cancer
- F18 FDG PET CT scan is not generally indicated in these patients.
- Bilateral mammography is indicated to rule out multicentricity and cancer in the contralateral breast.
- Usually a chest radiograph and ultrasound abdomen are used
- However, a minority of patients with T1 breast lesion with no axillary node involvement have presented with distant metastases and hence the recent development of increasing use of PET CT by oncologists as well as patients though not part of any guidelines.
- MRI breast is possibly a significant investigation if the patient is planned for breast conservation surgery



No metastases – on FDG PET CT scan – underwent BCS

Invasive ductal carcinoma grade II NOS

5 X 6 mm size tumour

All margins free of tumour

Extensive intraductal component present

0/8 lymph nodes positive (SLNB)

ER 7+/ PR 8+/ Her 2 neu 3+

Ki 67- 25%