

Mammogram

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Mammogram is x ray of Breast

Is less effective in young ages (more dense breast)

Cyst seen on ultra sound

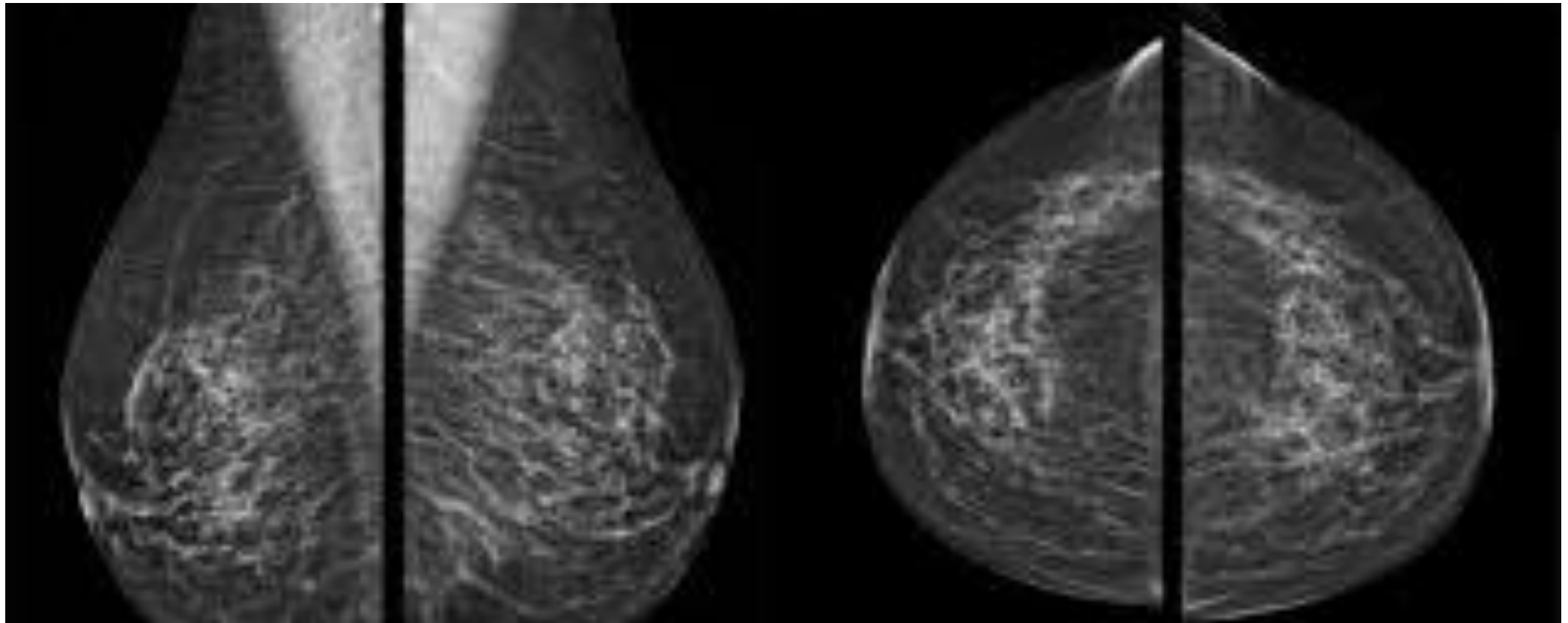
Ultrasound show the exact location of mass

Mammogram show you calcification

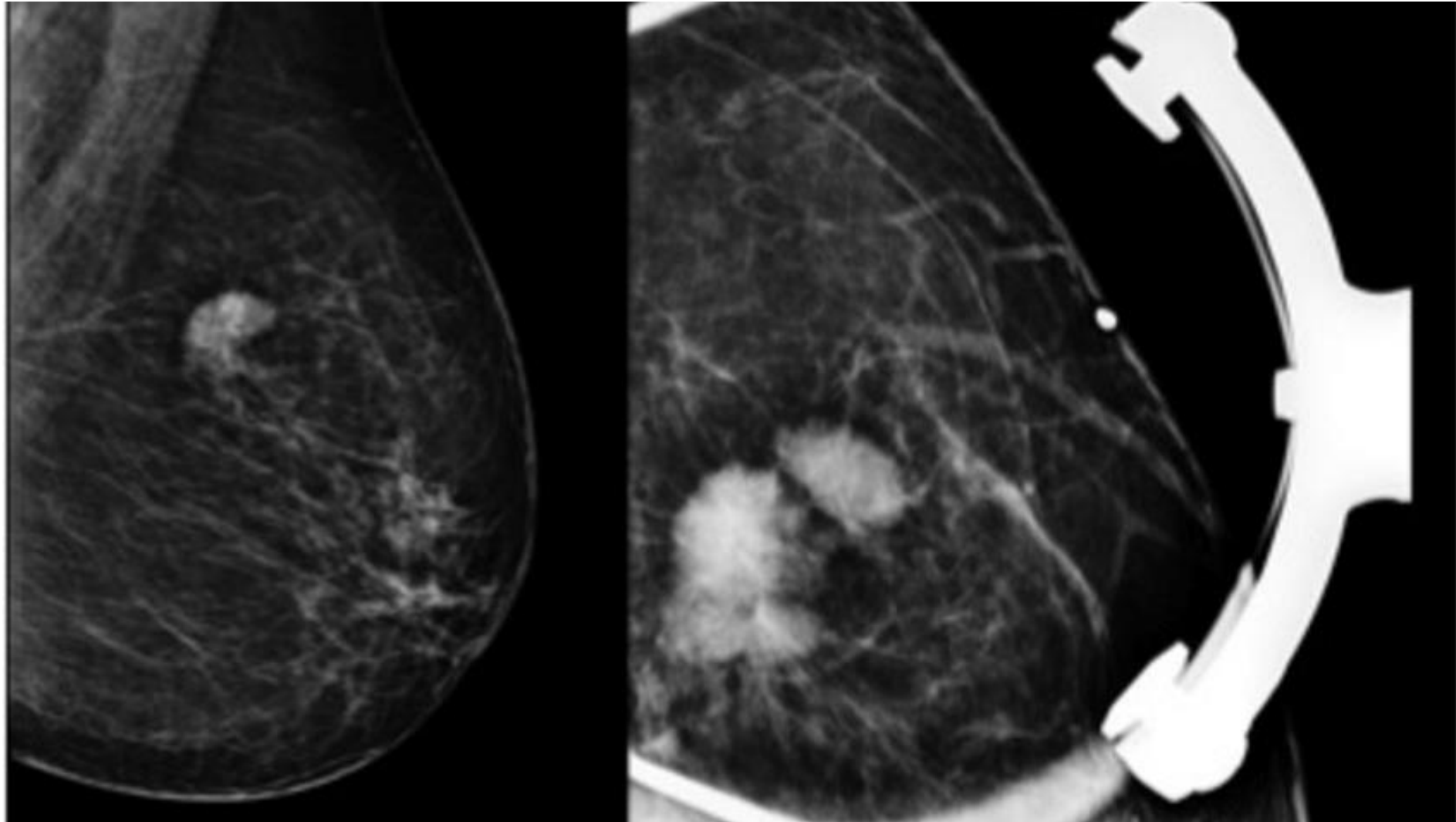
Craniocaudal = from above the breast

Upper part of craniocaudal is the upper part

Mediolateral = from lateral part of breast and shows pectoral major and lymph node as white shadow (information : upper or lower part of breast)



-This device is
compression spot used
when an area is
suspicious
-If disappeared after
compression it is normal
tissue, if not it is mass



- Name , date , view
- Breast density .
- Mass
- Calcification
- Nipple and skin changes
- Axillary lymph node

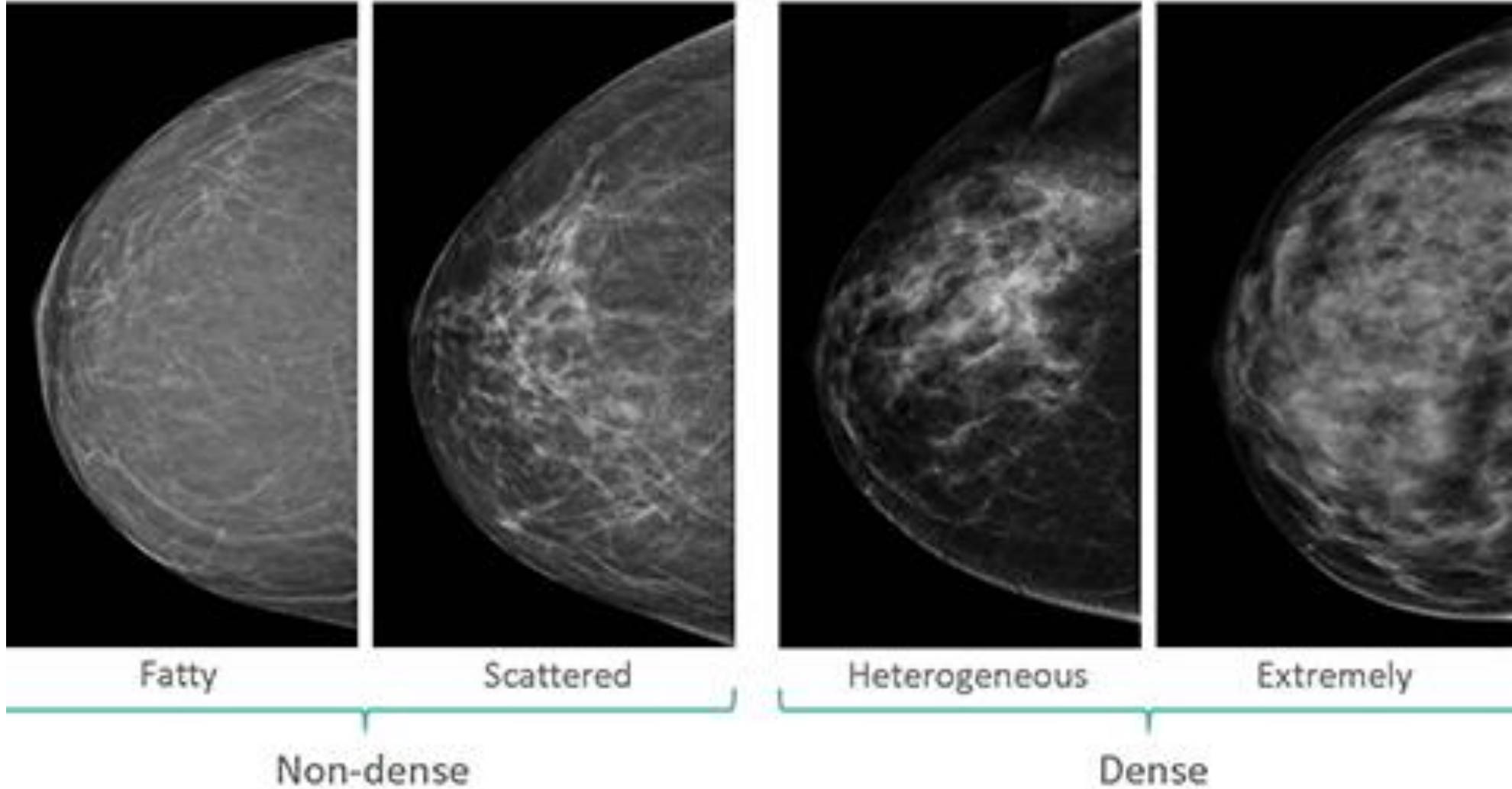
Breast density should be addressed at first according to classification since it affects sensitivity

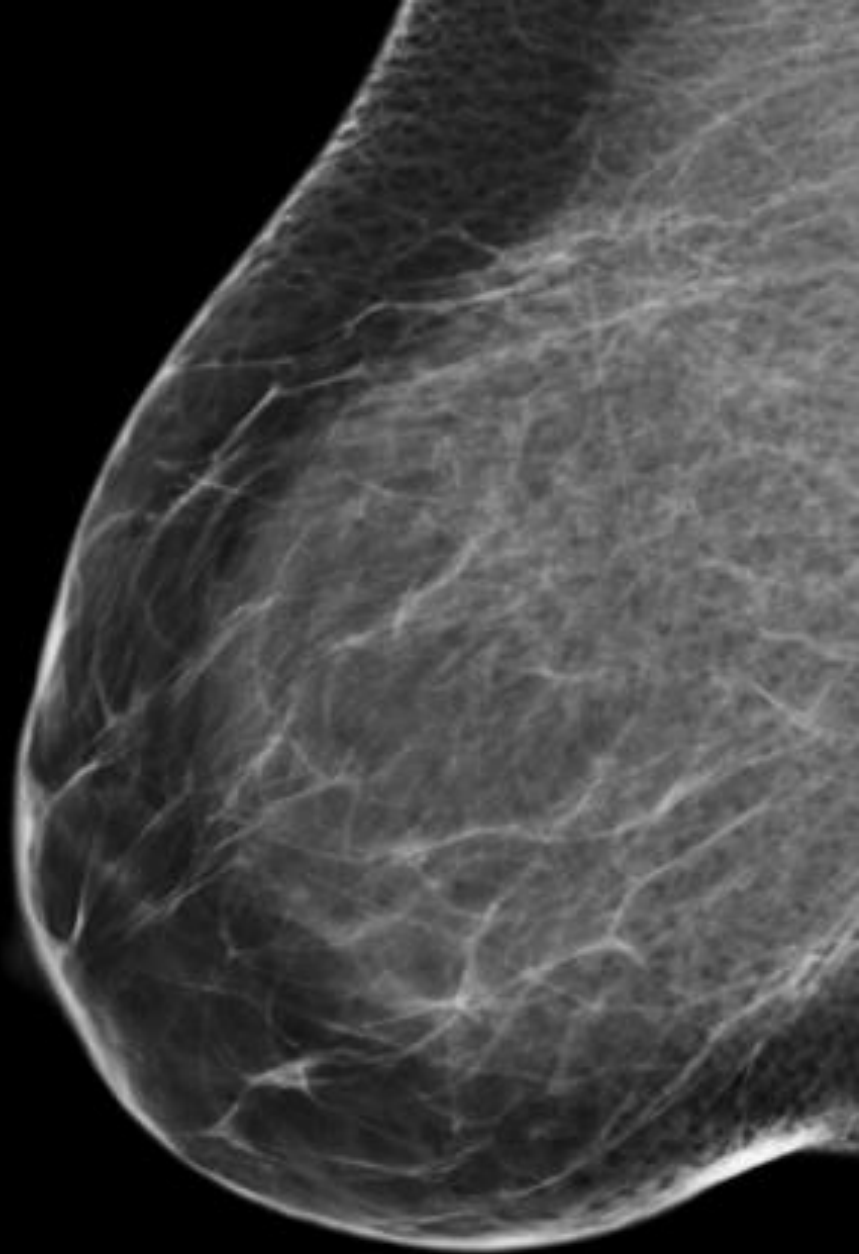
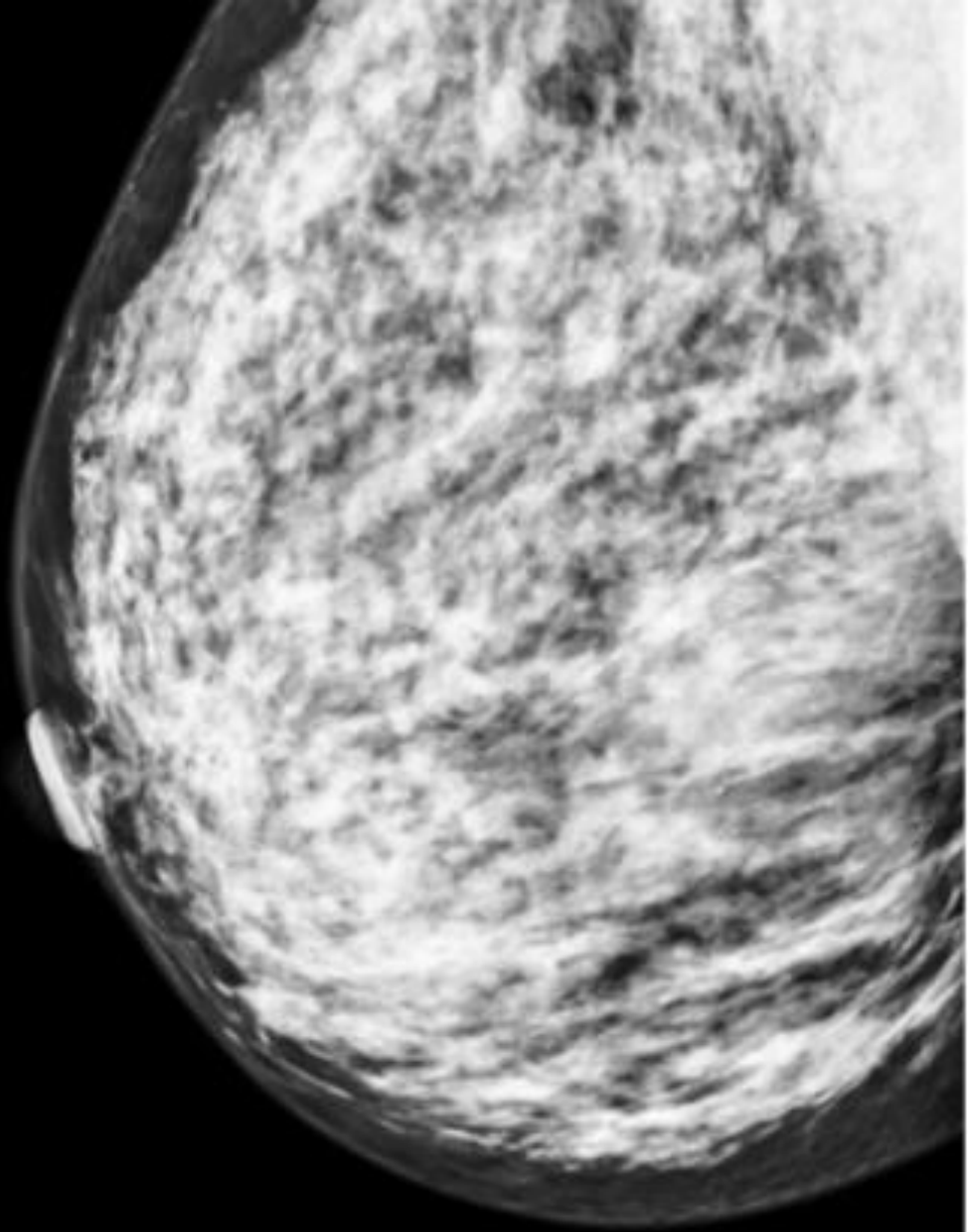
1 0 – 25 breast tissue (mostly fat) best sensitivity

2 25 - 50

3 50-75

4 more than 75 granular tissue (less fat)





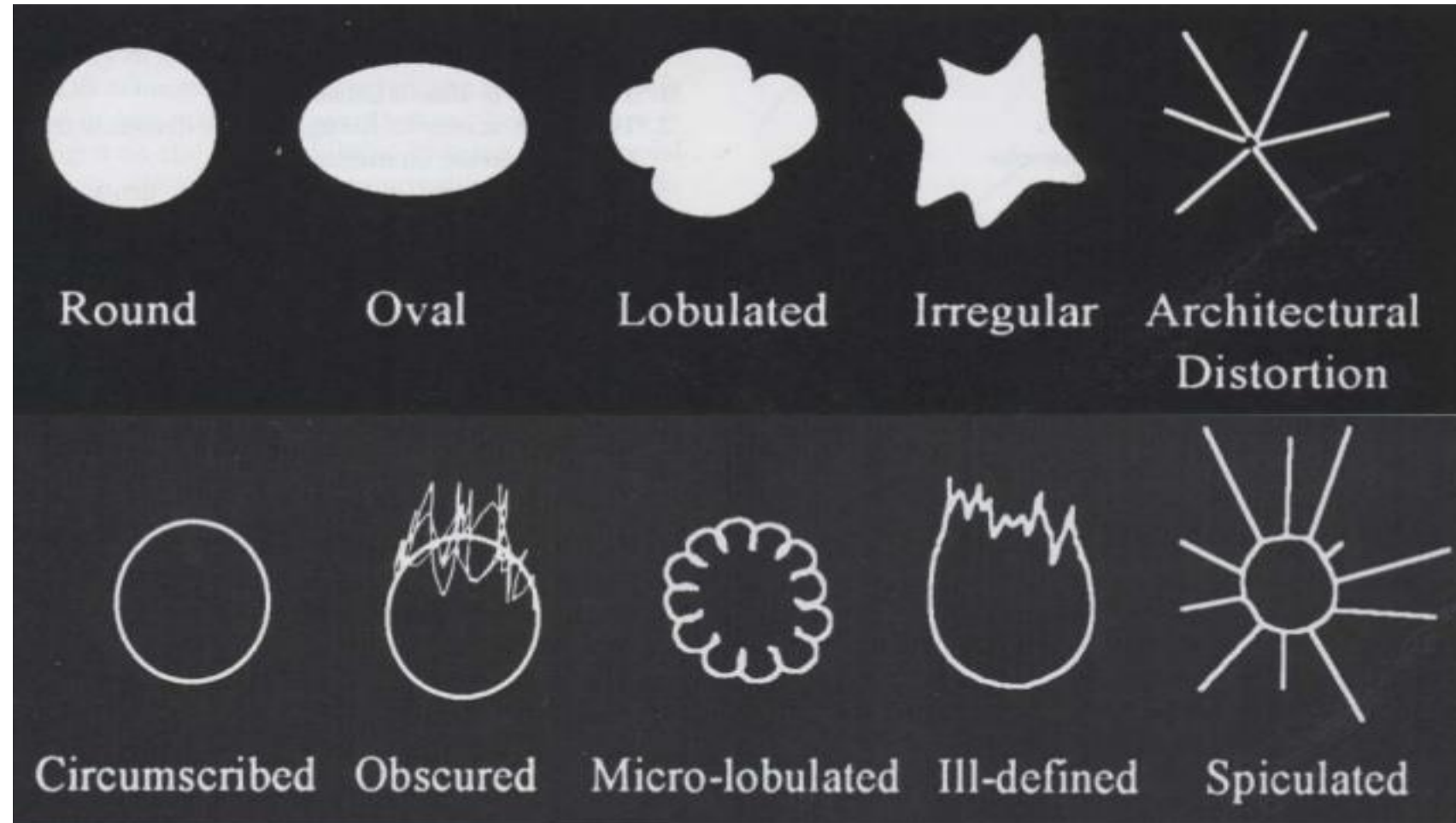
Your goal is to check for malignant signs

= mass or calcification

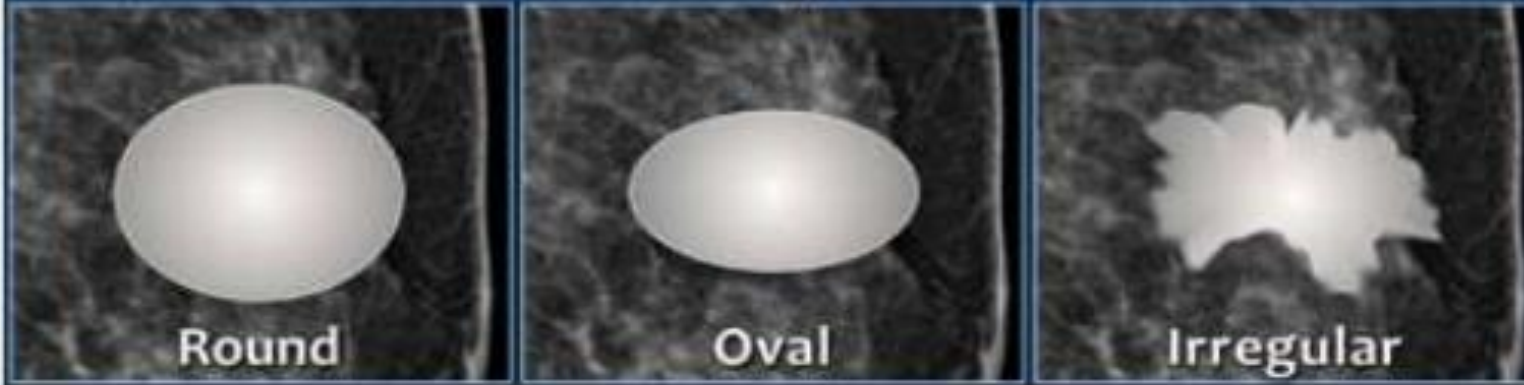
Architectural distortion : normal tissue arranged in upnormal what need biopsy and further investigation

Spiculated mass : mostly malignant exception : abscess or necrosis

First one is most benign g last one is most malignant

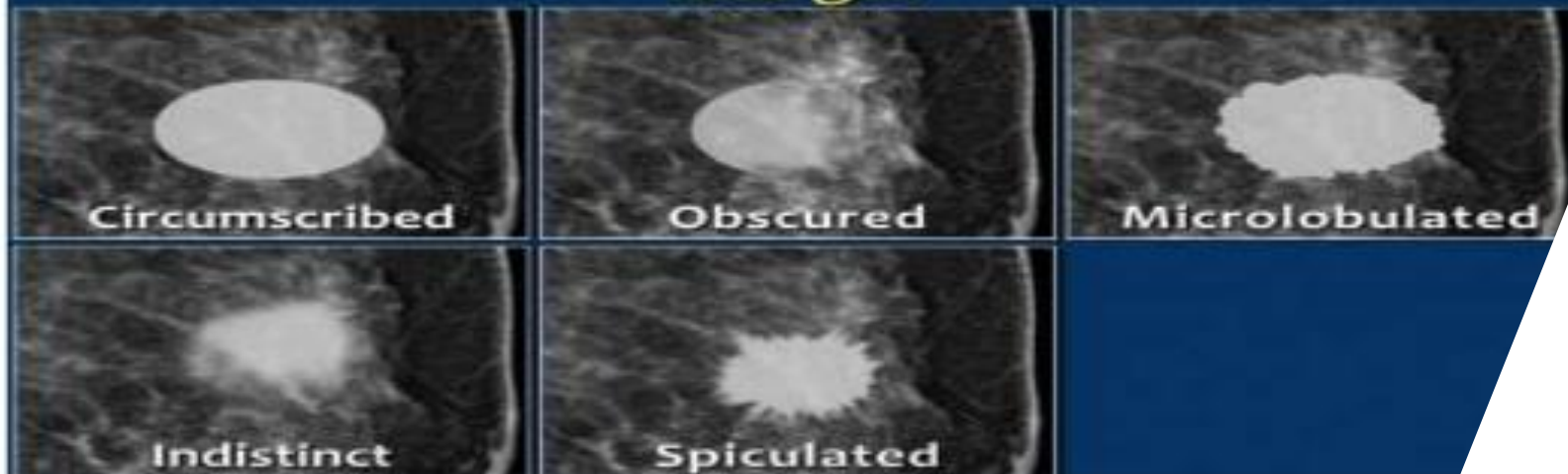


Shape



Describe site shape and margin and density

Margin



Calcification :

When bilateral = mostly benign

Localisation is suspicious to malignant

- Diffuse distribution:

Formerly called “scattered”, these are calcifications randomly distributed within the breast

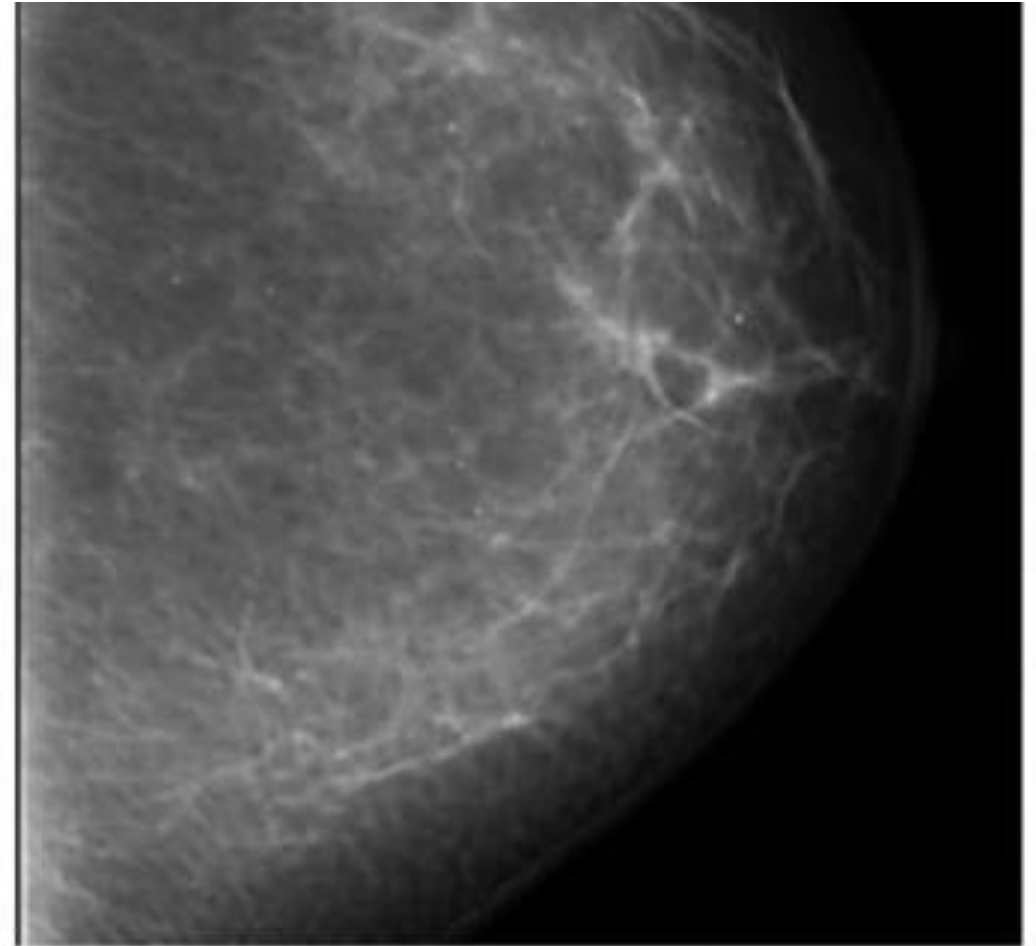
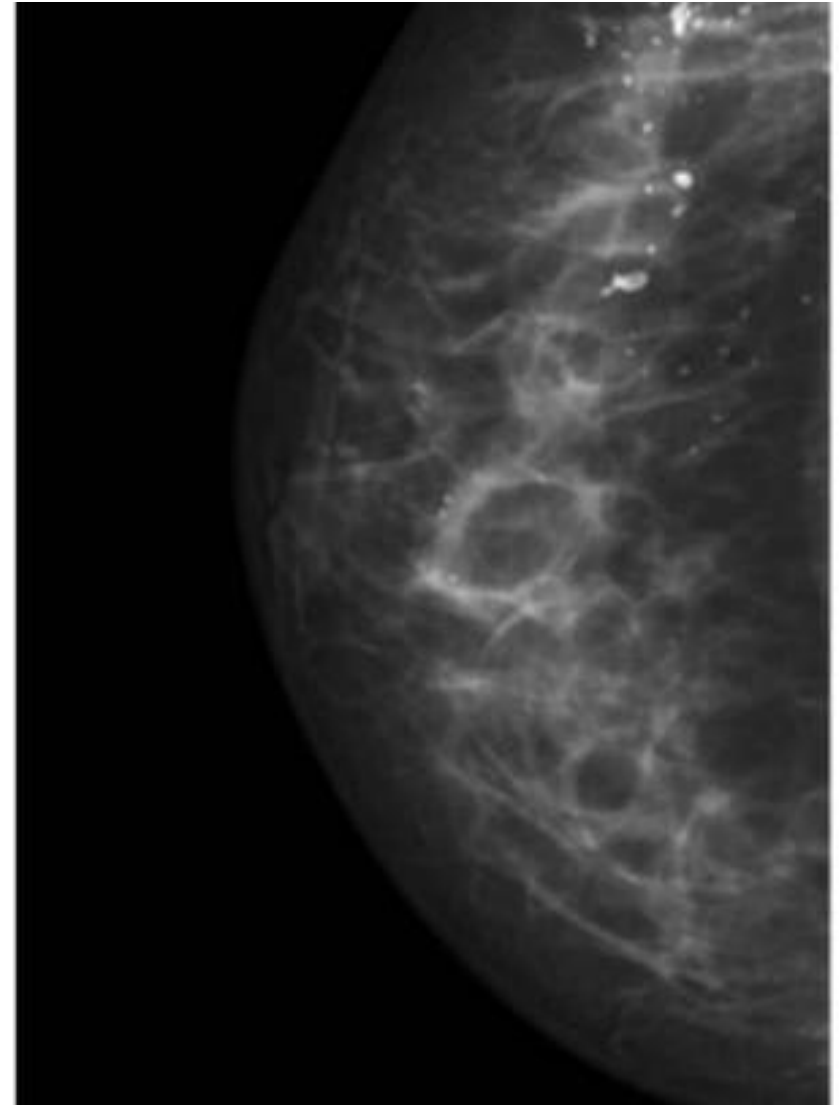


Figure 2. Diffuse distribution. Round microcalcifications diffusely distributed within the breast, benign aspect.

- Regional distribution:
- This pattern describes calcifications in an extensive area, greater than 2 cm in their largest dimension.



Group distribution : malignant

- Grouped/clustered distribution:
- This term is used when a few calcifications are found in a small area of tissue. The lower limit for this descriptor are 5 calcifications in 1 cm or when there is a definable pattern.

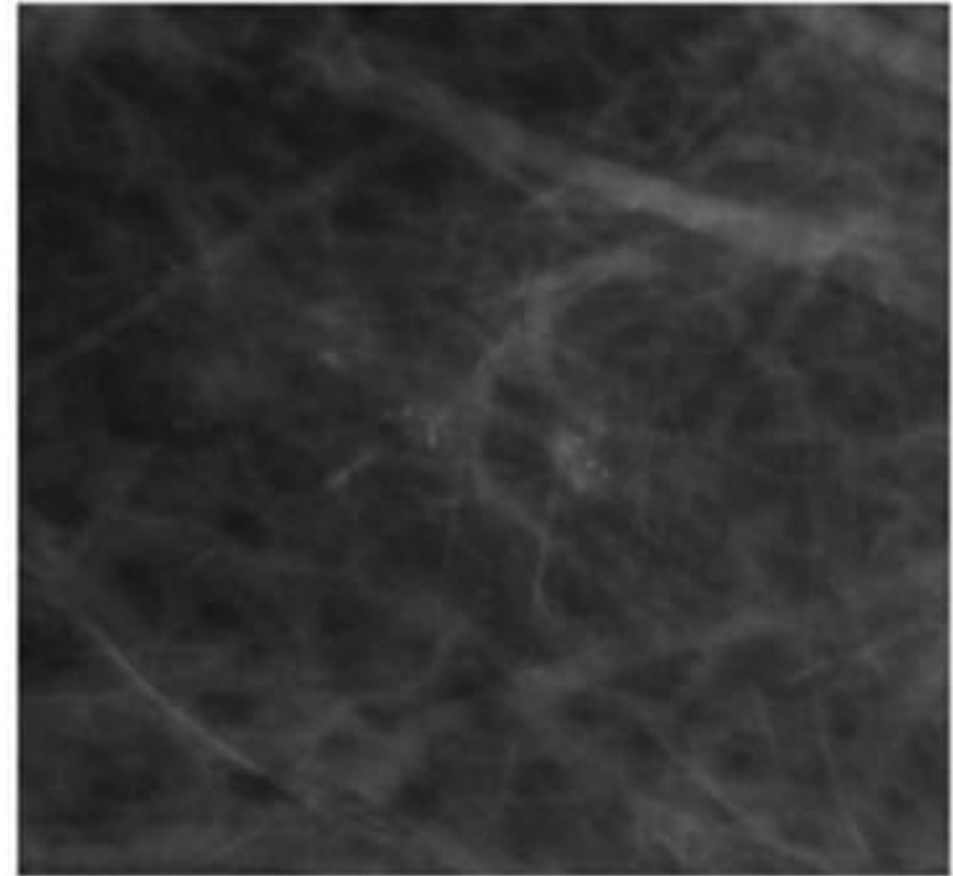


Figure 4. *Grouped Distribution. Pleomorphic and linear microcalcifications distributed in a small area. Stereotactic biopsy: atypical ductal hyperplasia.*

Linear (calcification of duct)
= highest risk of Mal

- Linear Distribution: Calcifications are arranged in a linear path that can branch, suggesting calcium deposits within a duct. A probability of malignancy is described as about 60%

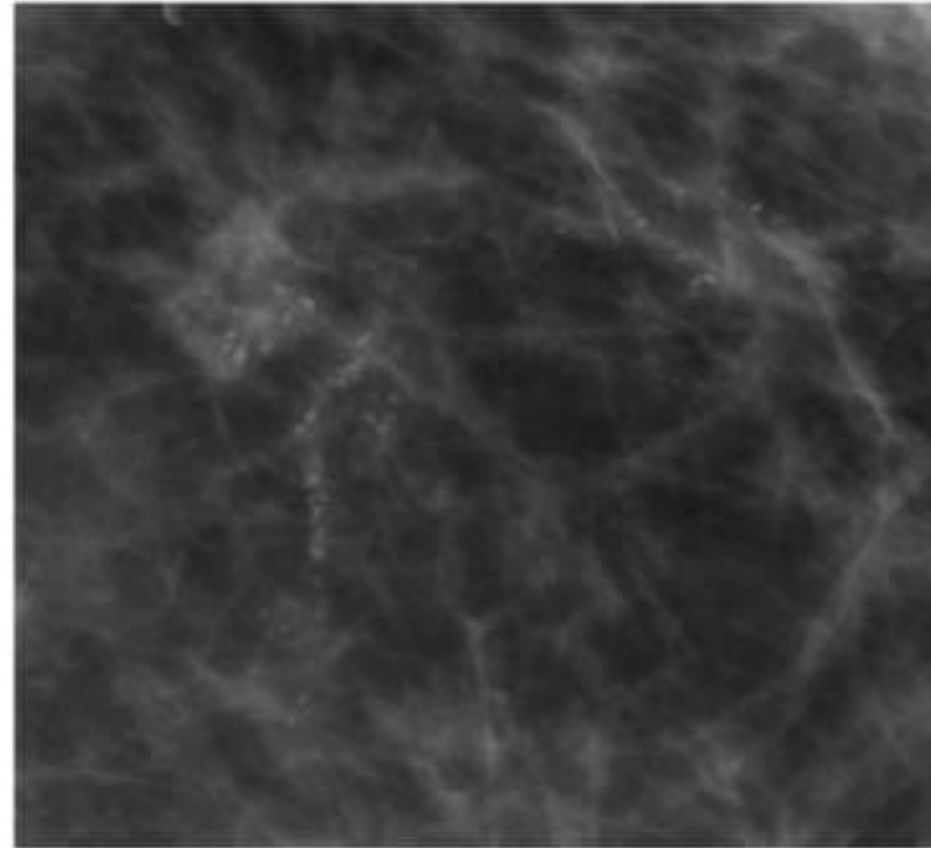
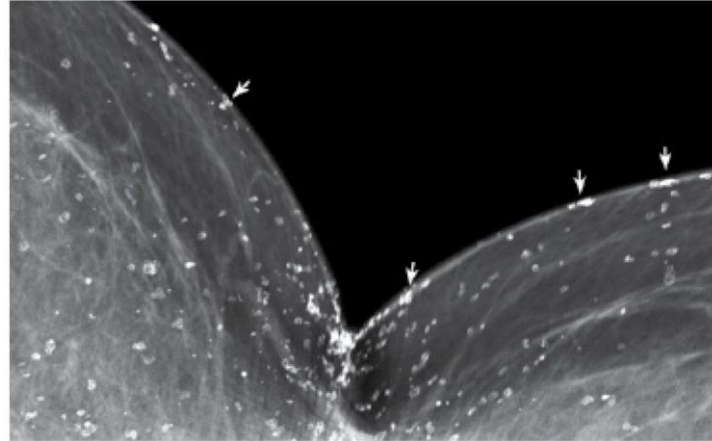
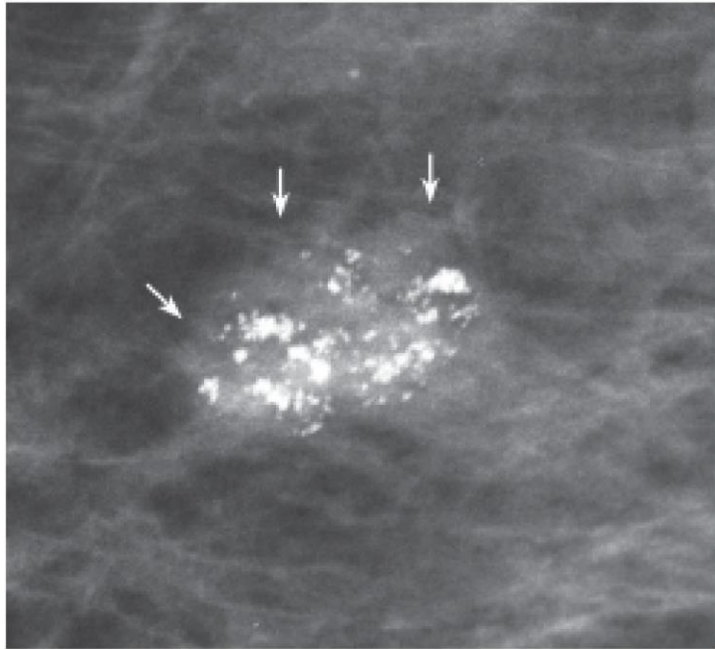


Figure 5. Linear distribution. Pleomorphic microcalcifications following the distribution of a duct. Stereotactic biopsy showed intracystic papillary carcinoma associated with high grade DCIS.



Vascular calcifications	
Skin calcifications	
Milk of calcium calcifications	
Thick linear calcifications	
Popcorn calcifications	BI-RADS 2
Dystrophic calcifications	
Round, scattered or isolated calcifications	
Ring calcifications	
Suture calcifications	
Round grouped calcifications	BI-RADS 3
Coarse, rough, heterogeneous calcifications	B
Amorphous calcifications	BI-RADS 4 B
Fine pleomorphic calcifications	B
Linear or branched linear calcifications	C
Linear and new branching linear and segmental distribution calcifications	BI-RADS 5

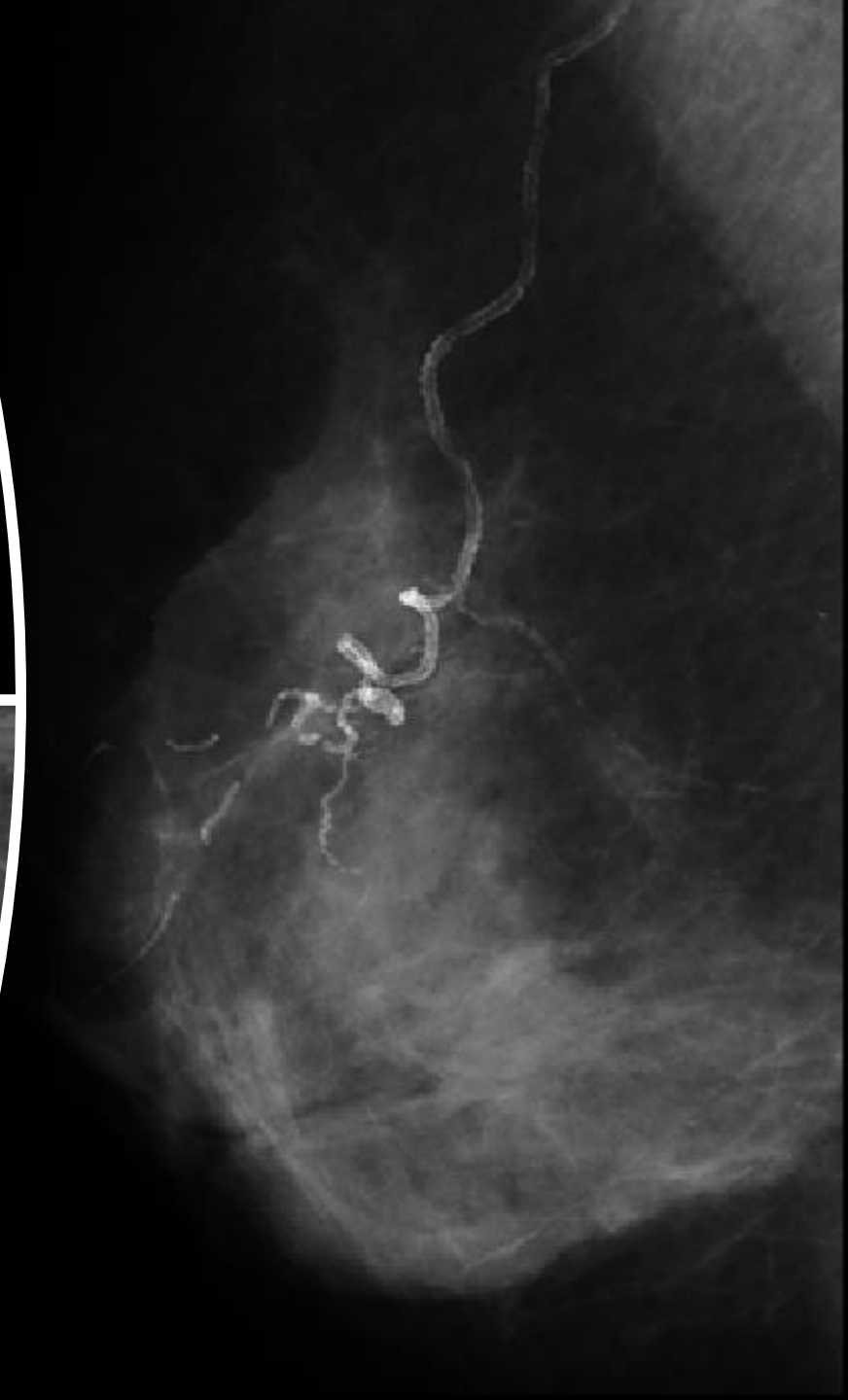
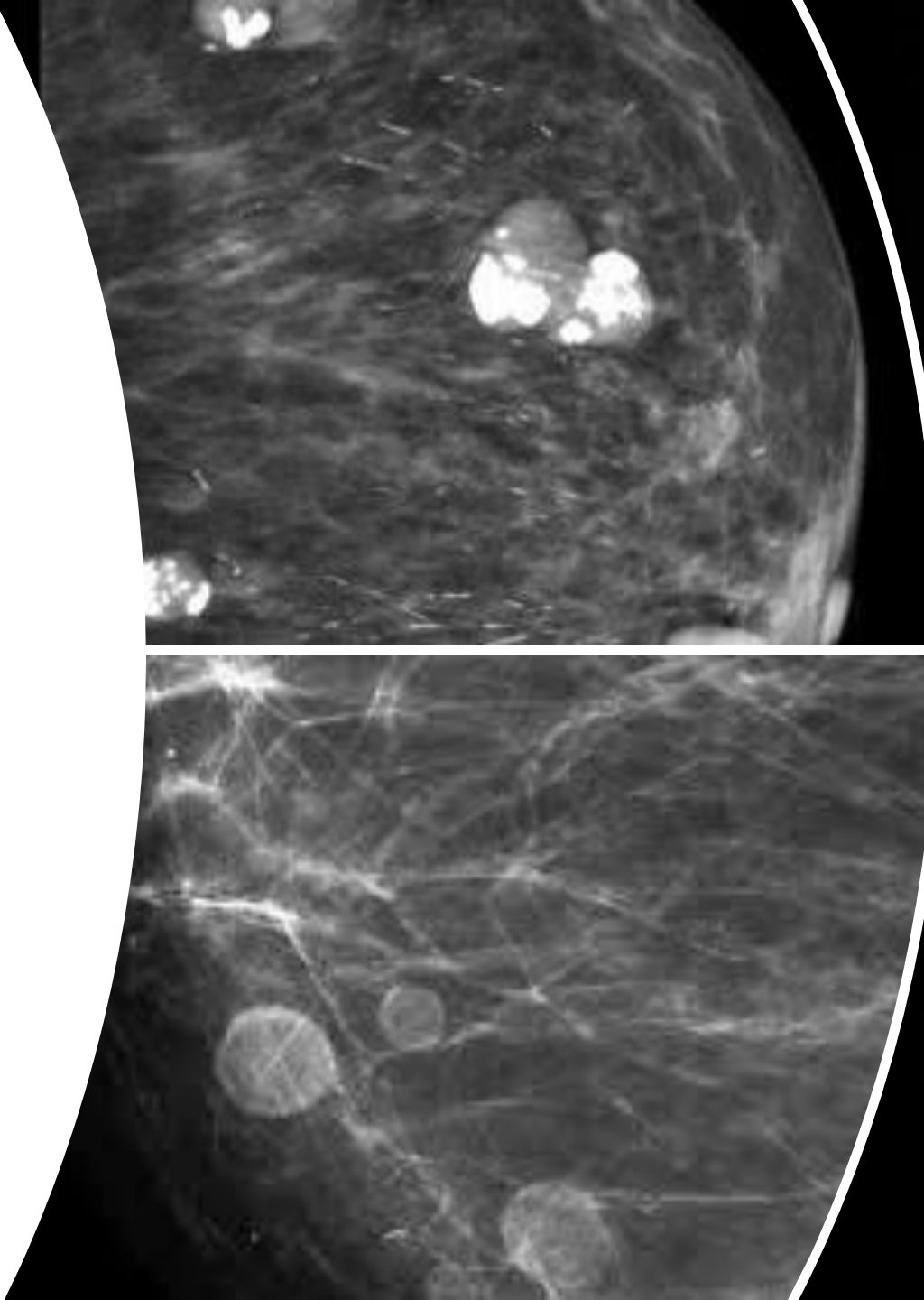
Till round are benign

Fine linear or branching and pleomorphic are malignant

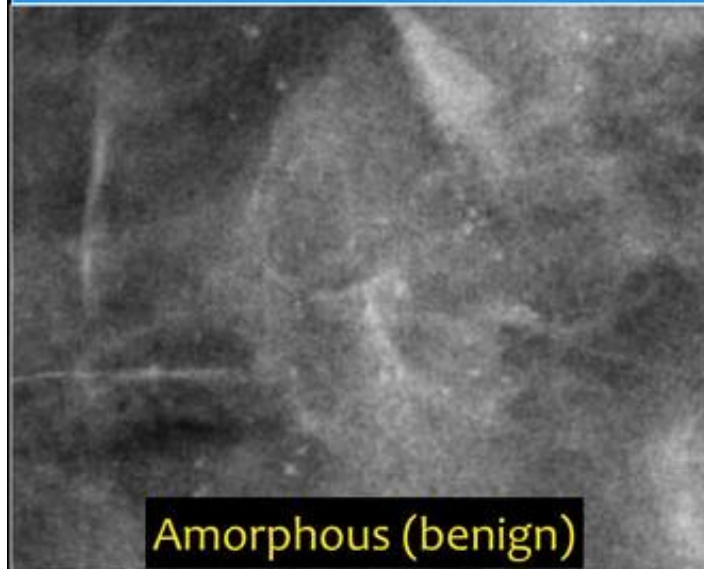
Upper left Pic = dystrophic mostly benign

Benign

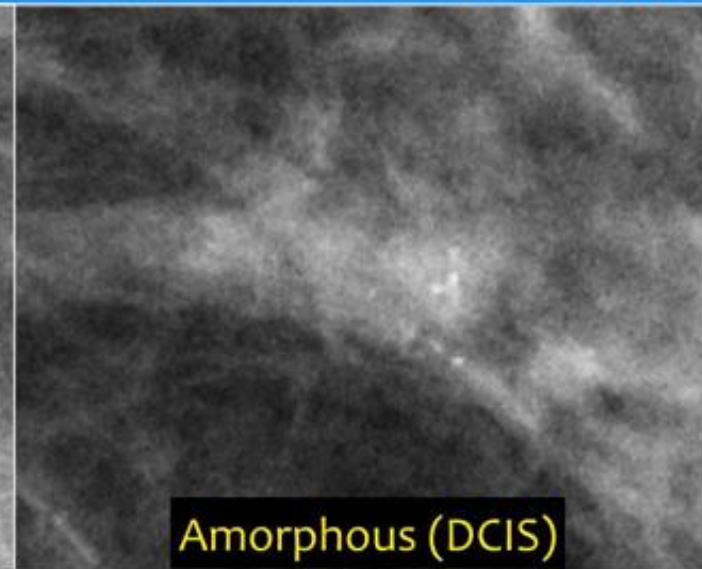
- Ex. Ring calcification
- Popcorn calcification
- Vascular calcification
- Vascular larger than linear
- Popcorn calcification = benign (involuting fibroadenoma)
- Ring = Cyst with marginal calcification
- Skin calcification : is benign too



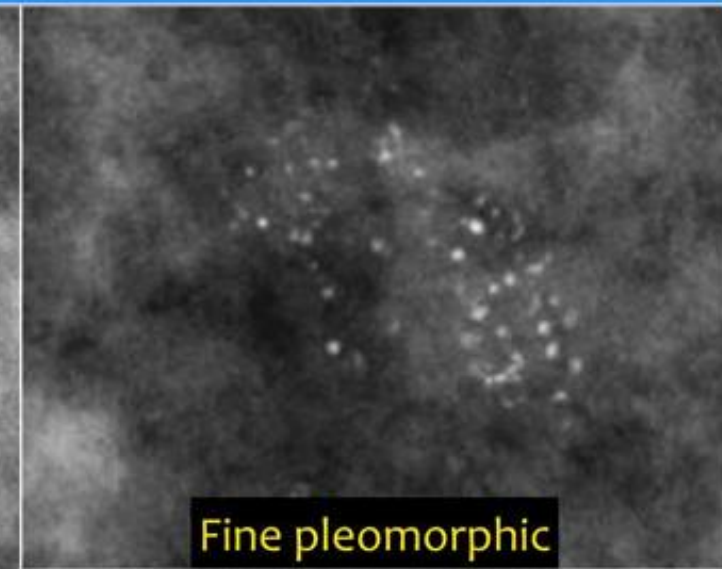
Suspicious morphology



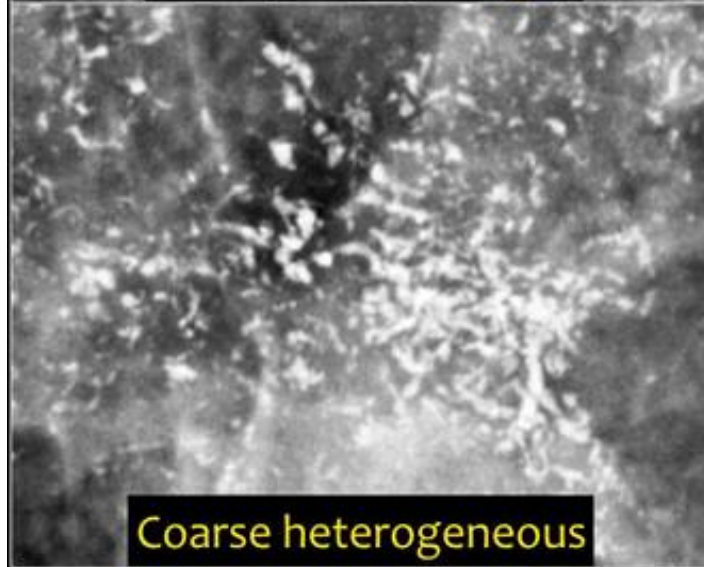
Amorphous (benign)



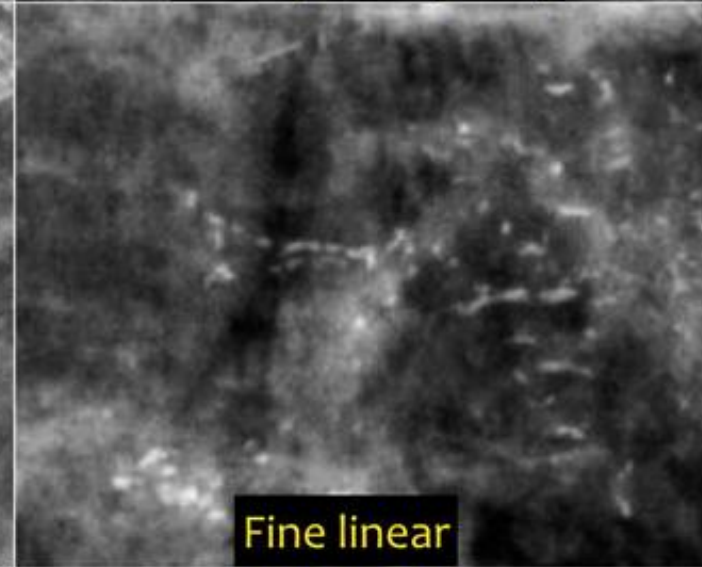
Amorphous (DCIS)



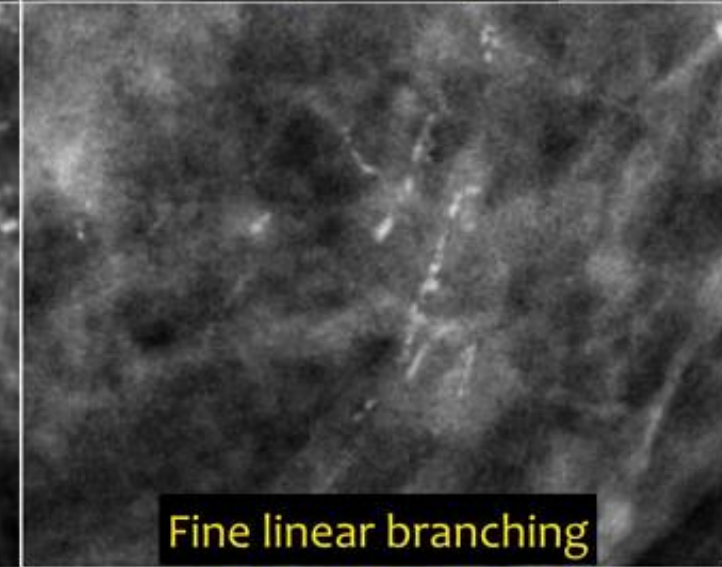
Fine pleomorphic



Coarse heterogeneous



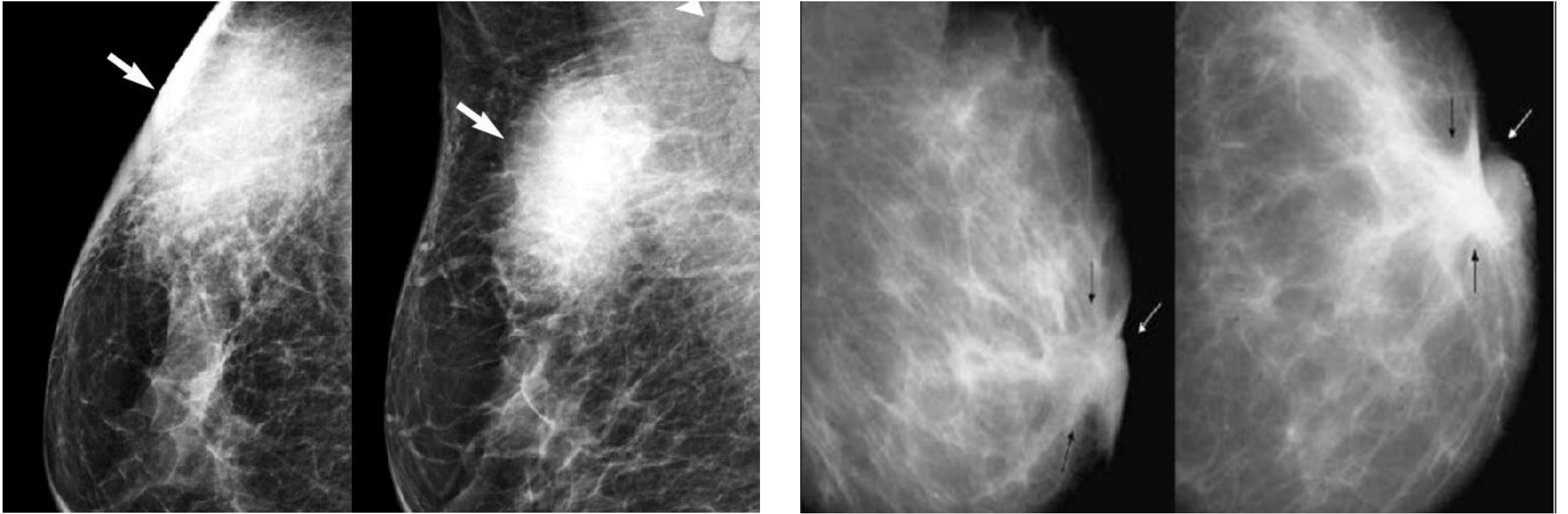
Fine linear



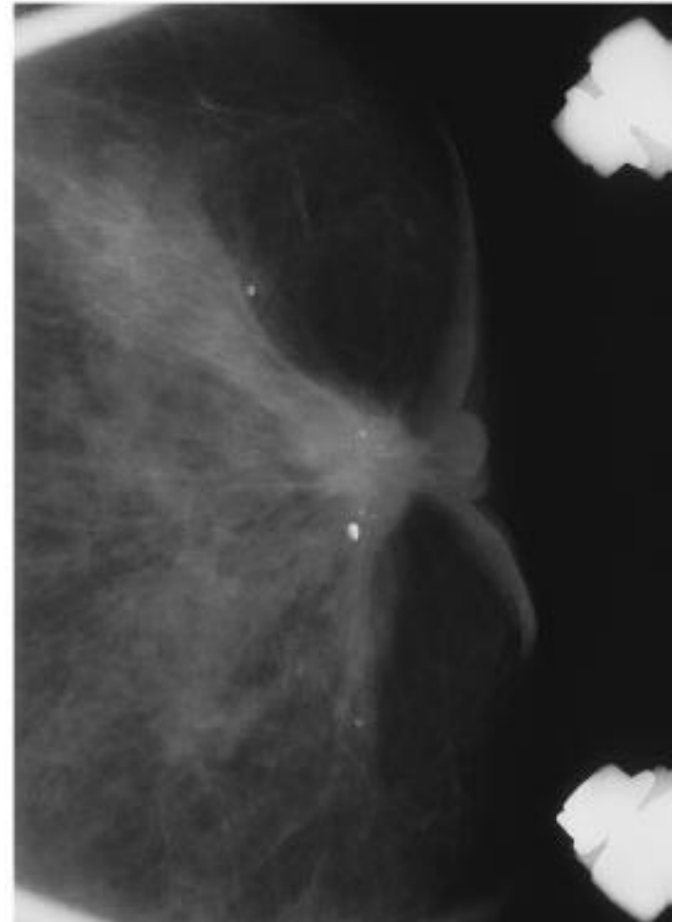
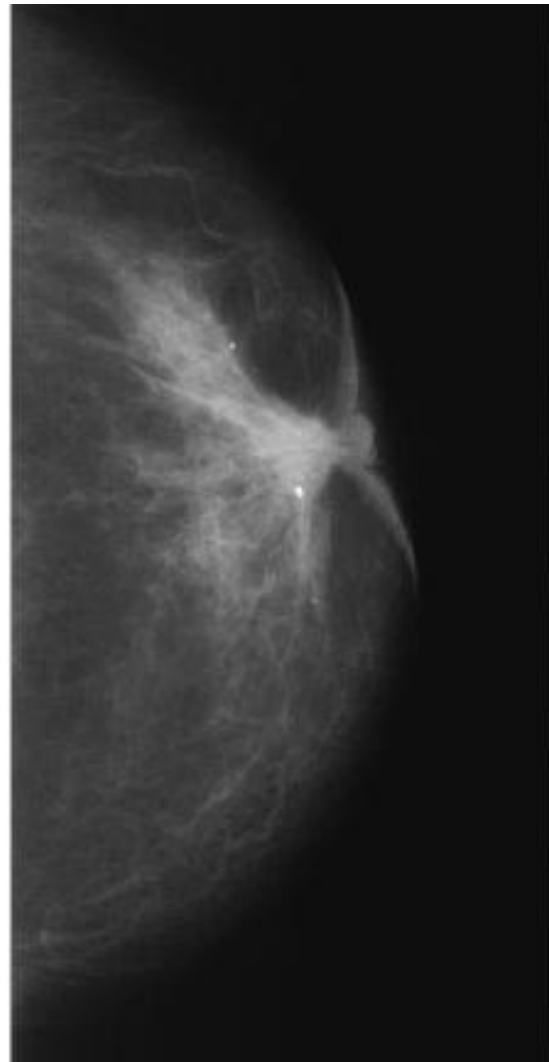
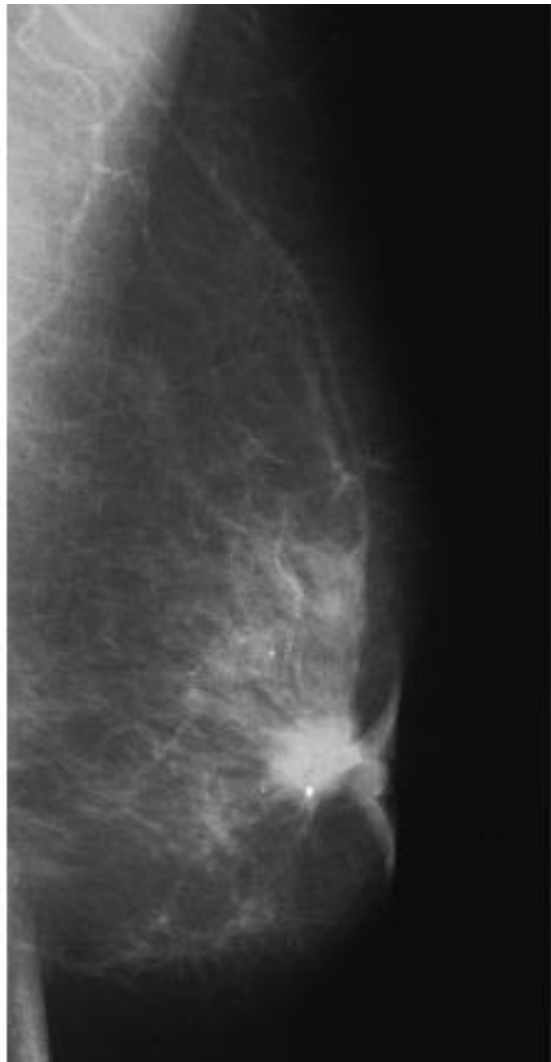
Fine linear branching

Coarse = كل وحدة شكل و بتختلف عن الثانيه زي الحجر المطحون

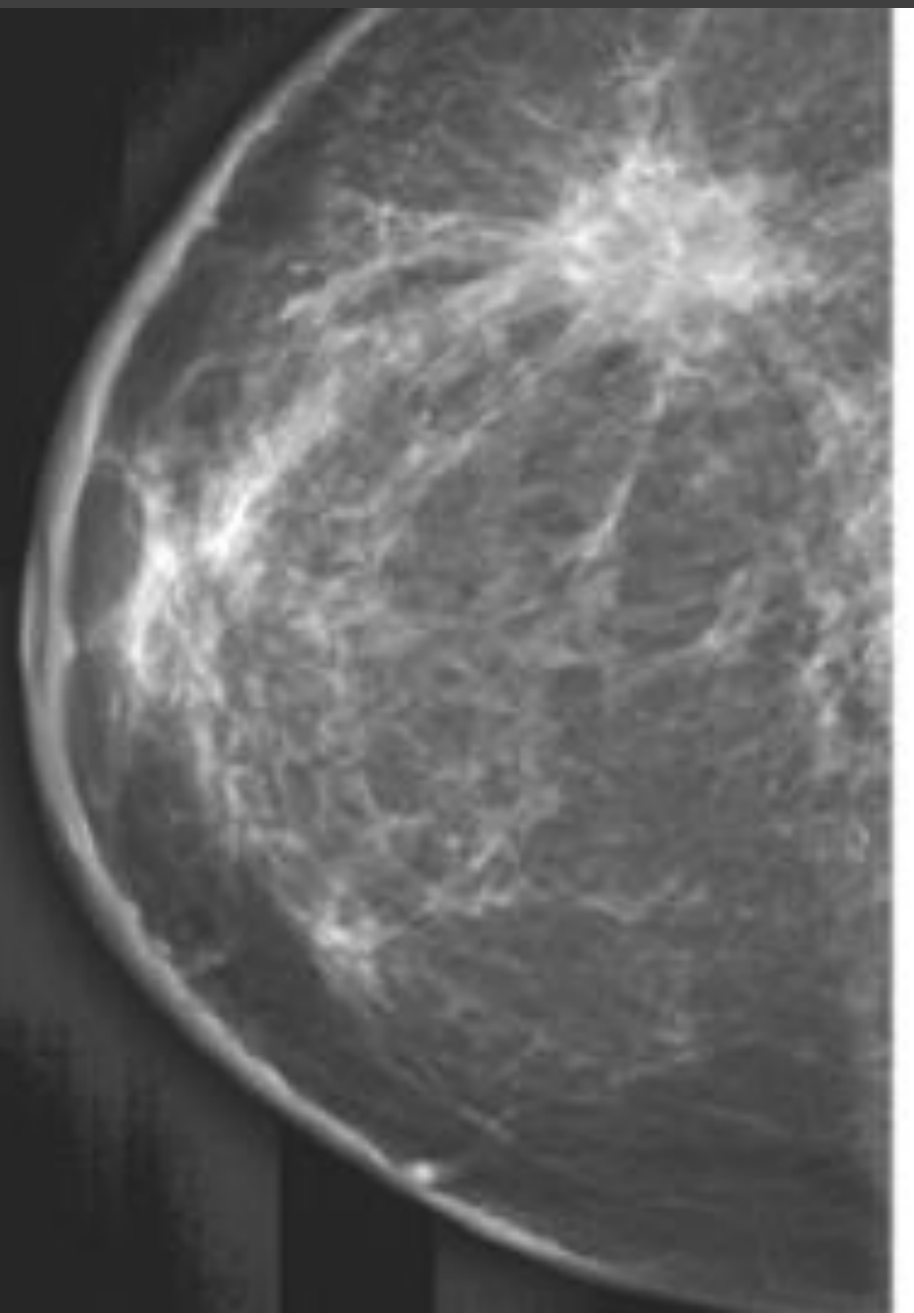
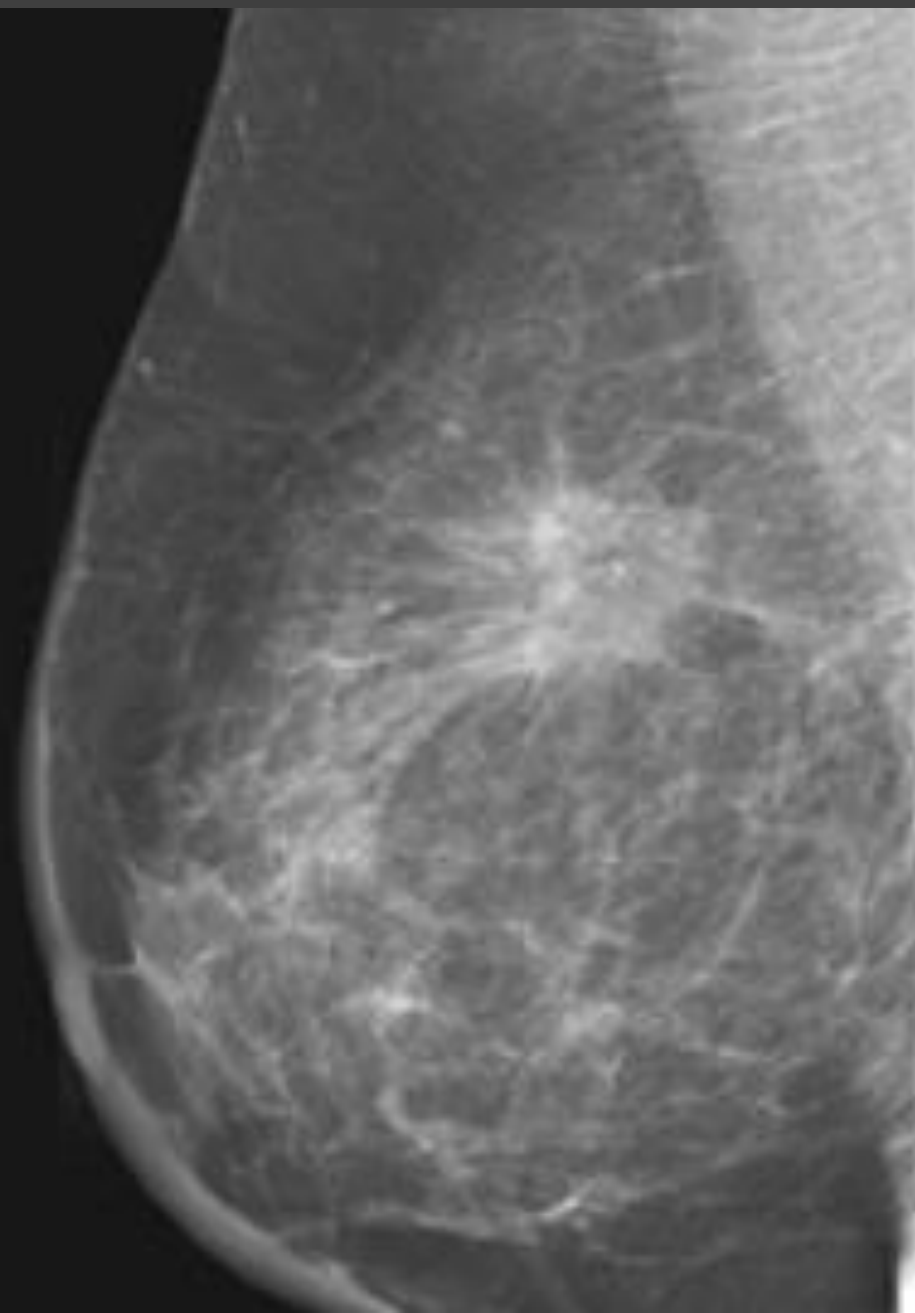
Mamogram guided biopsy to take biopsy from calcification because they are small and can't seen on other tiqniques

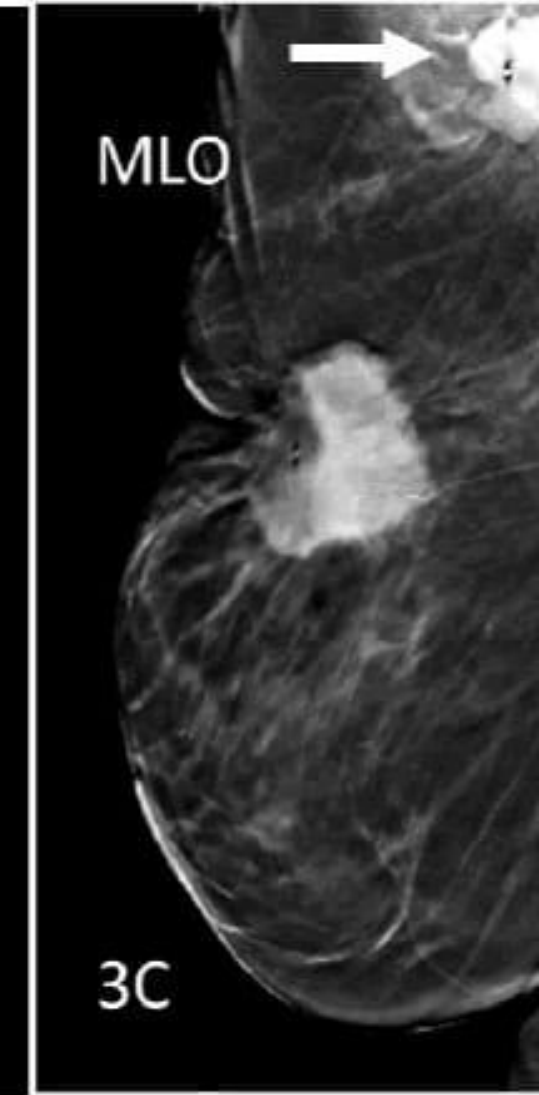
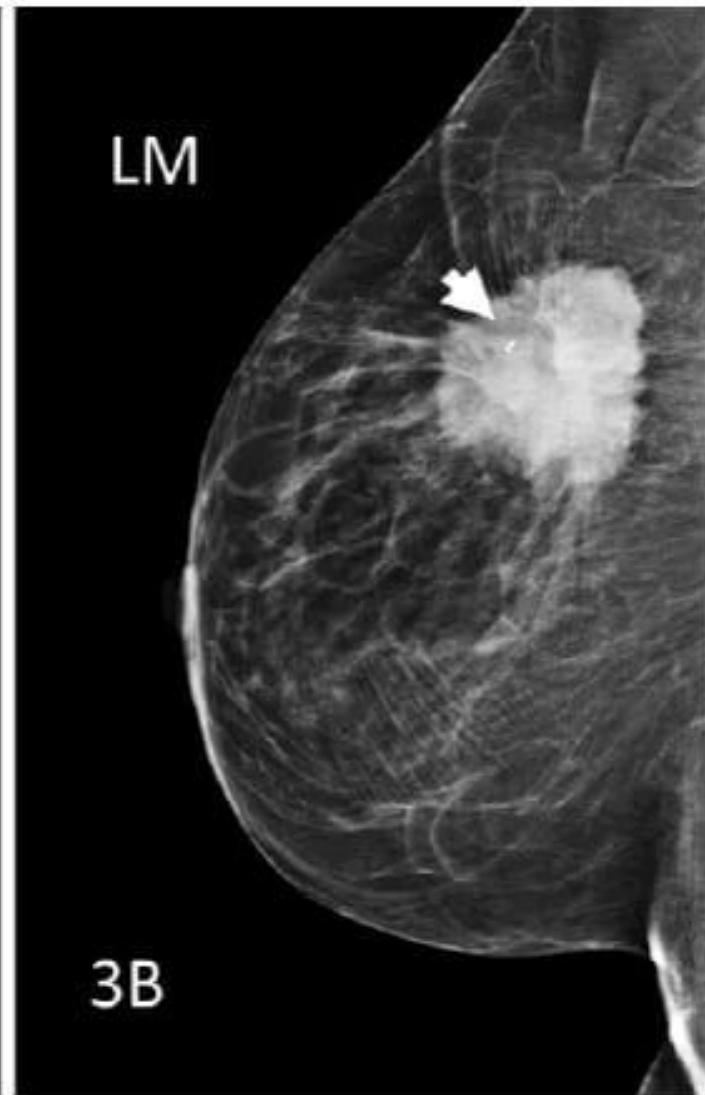
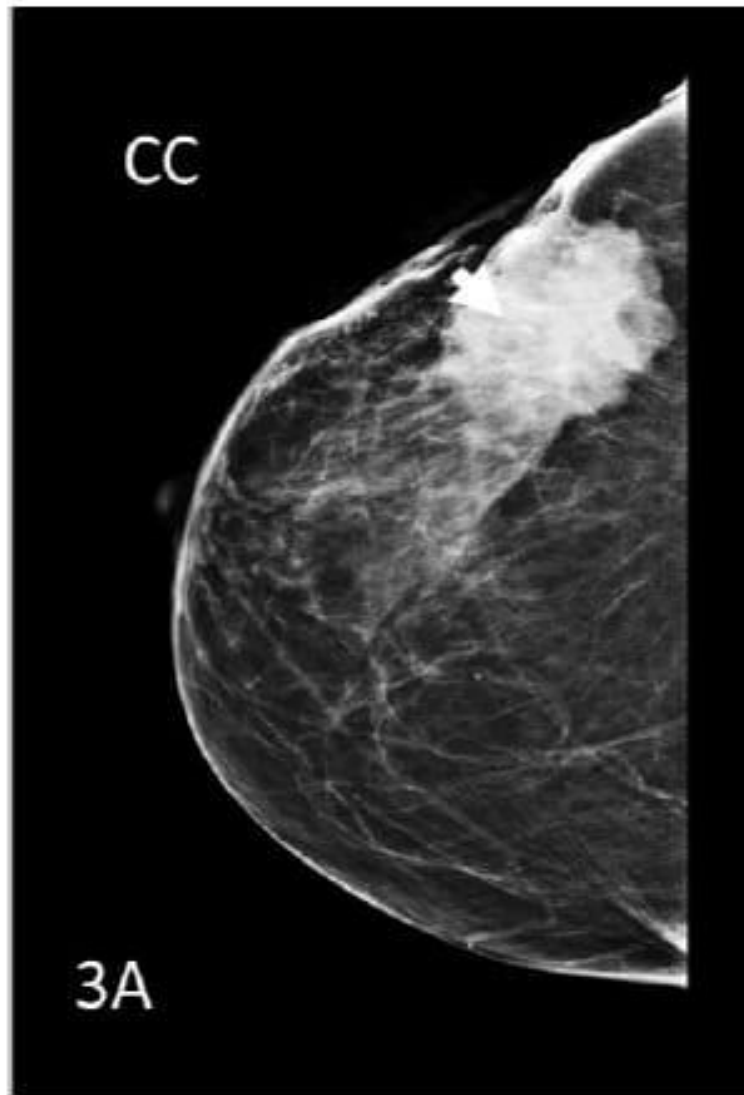


Nipple retracted and skin thickening (compared to most of skin around it) = malignant

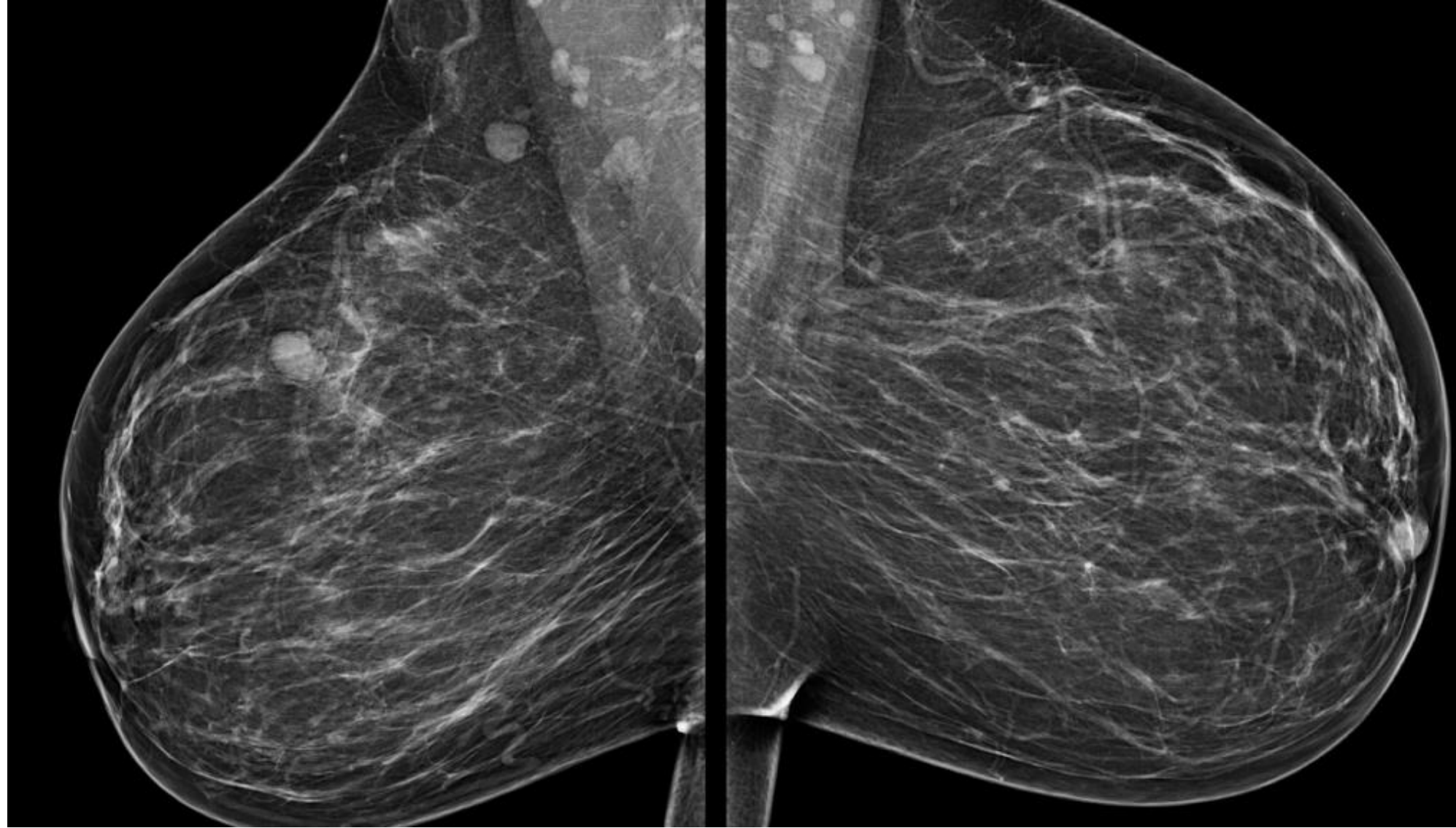


Mass pulls nipple posteriorly

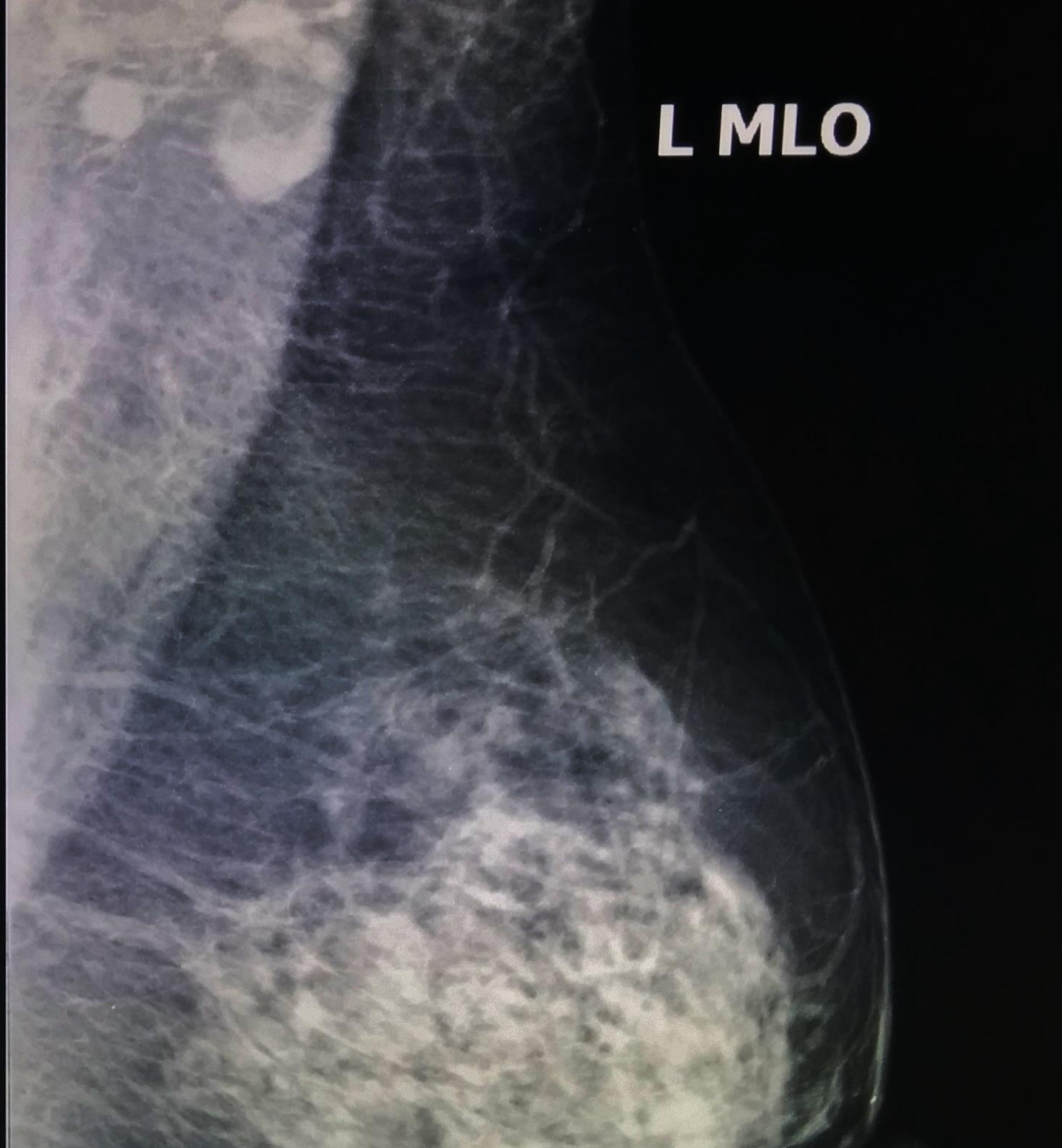
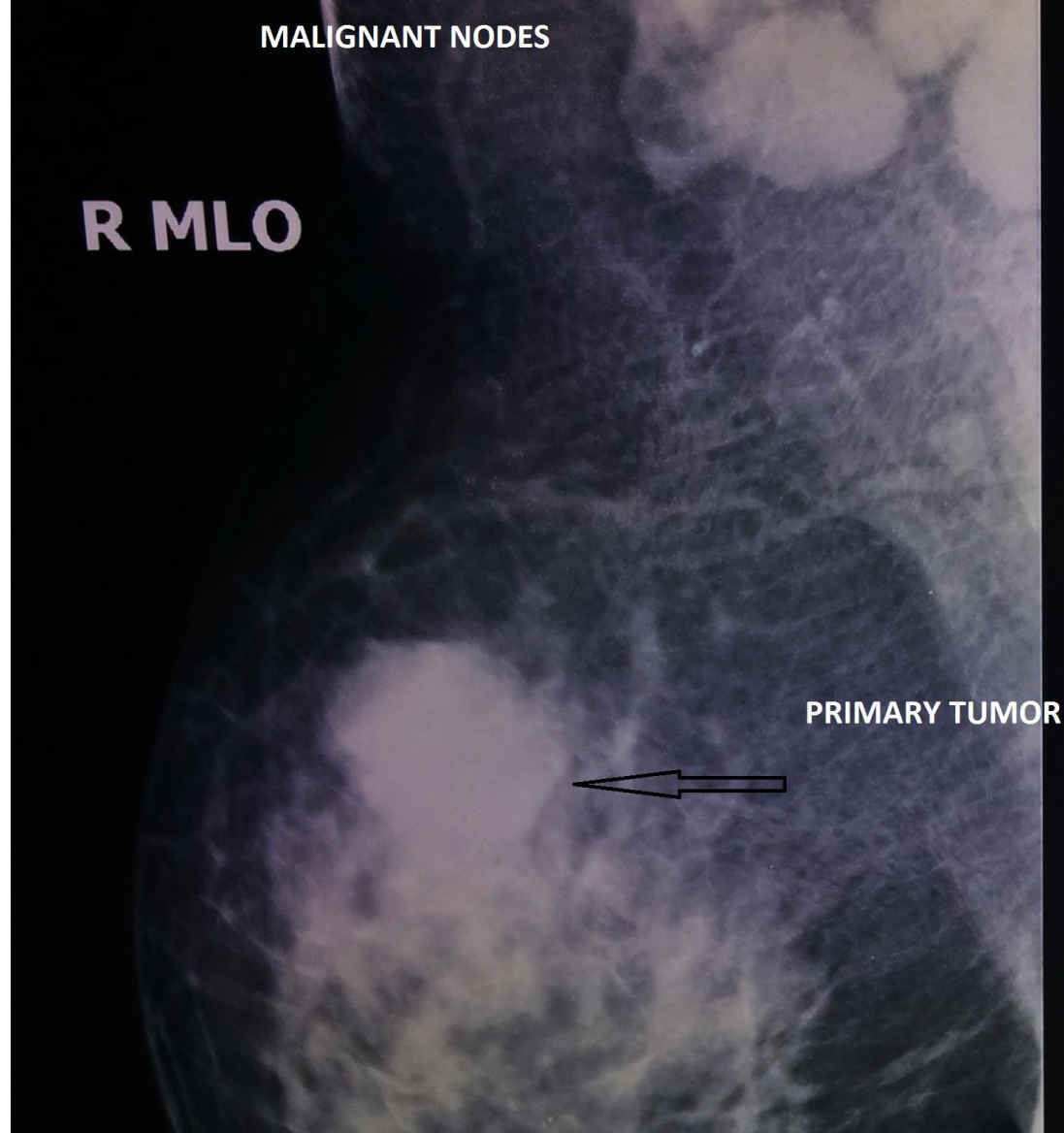




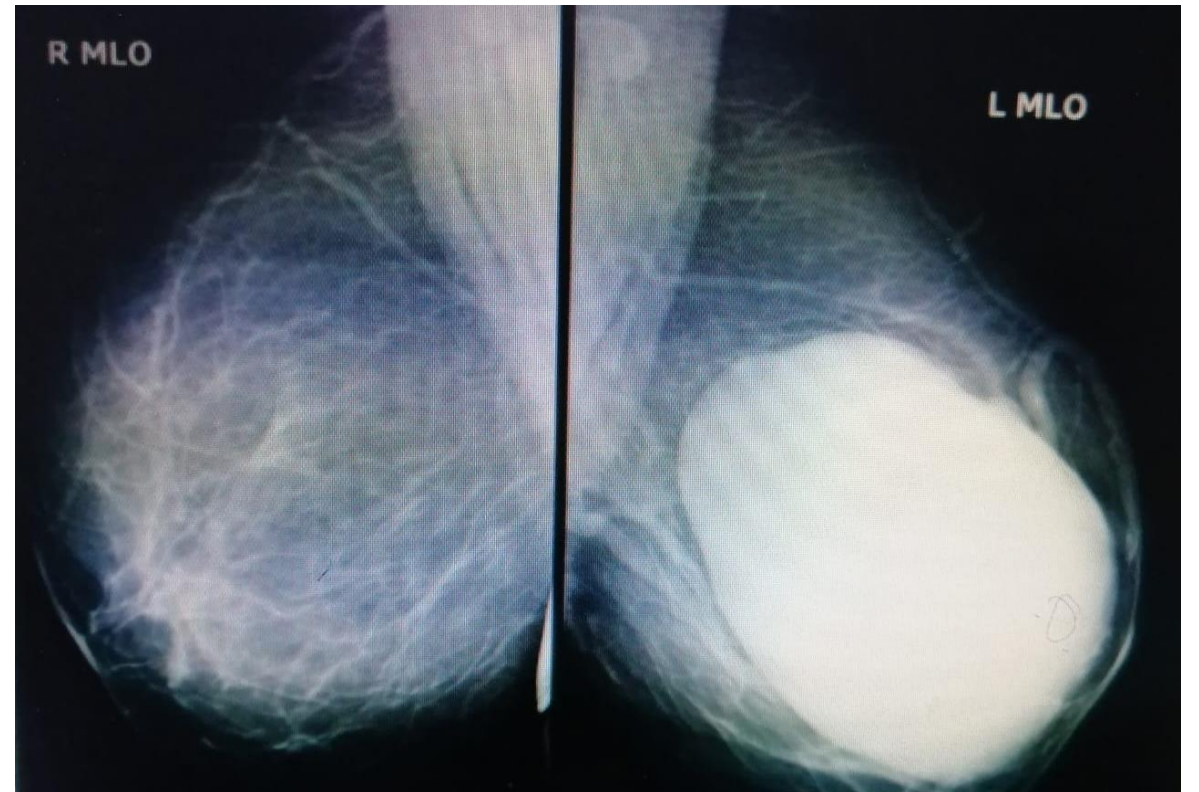
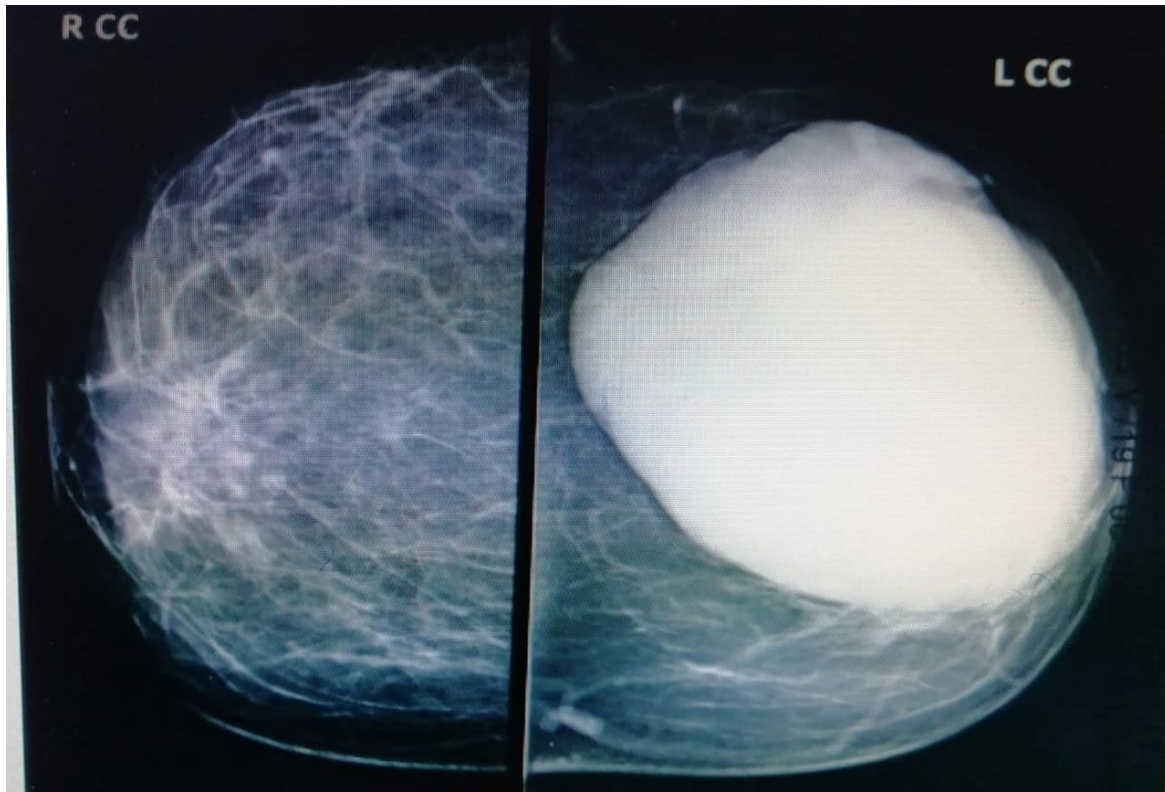
Description
Microlobulates
4cm
Upper outer
Skin thickening and retracted
Ln involved



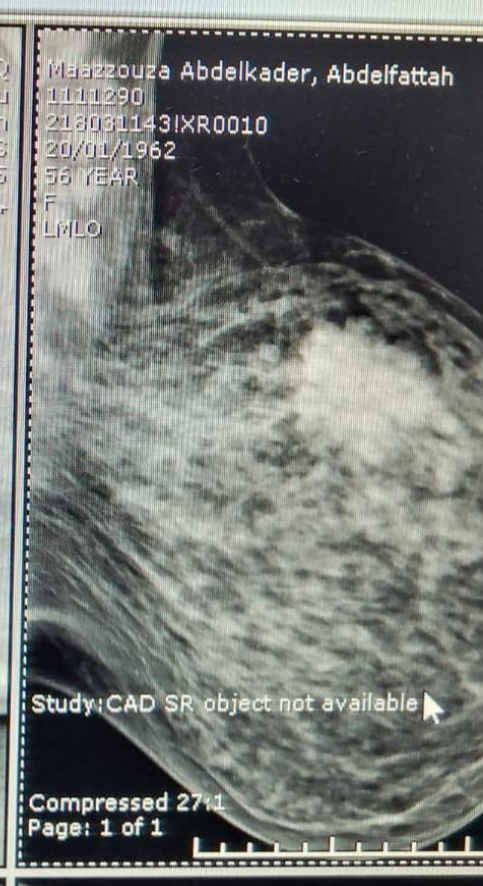
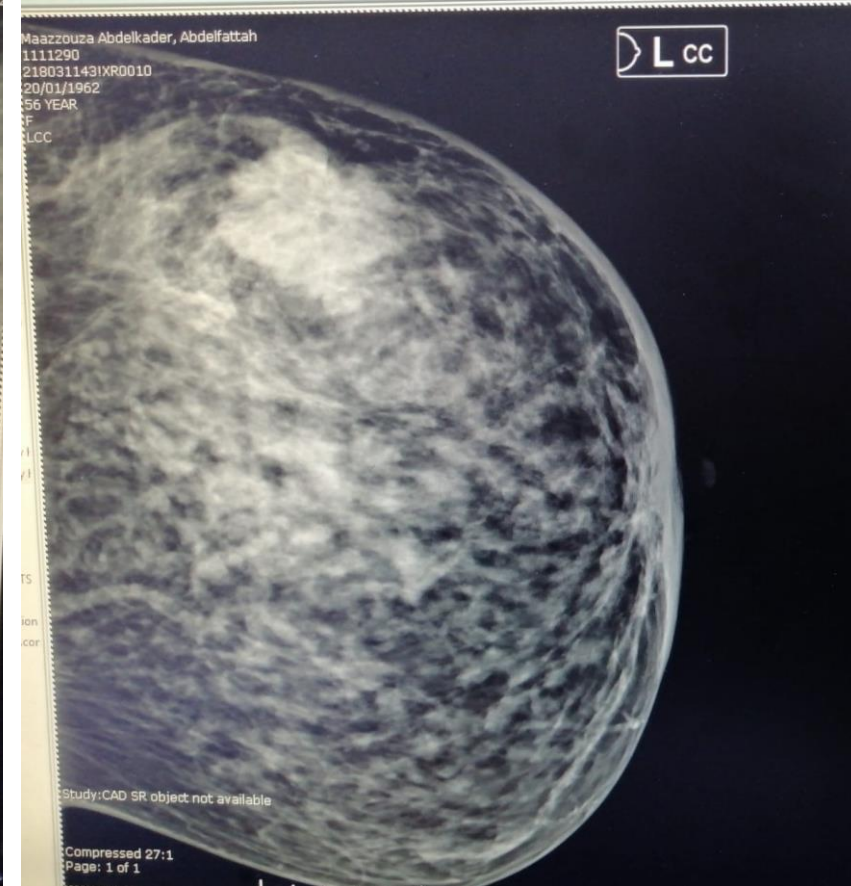
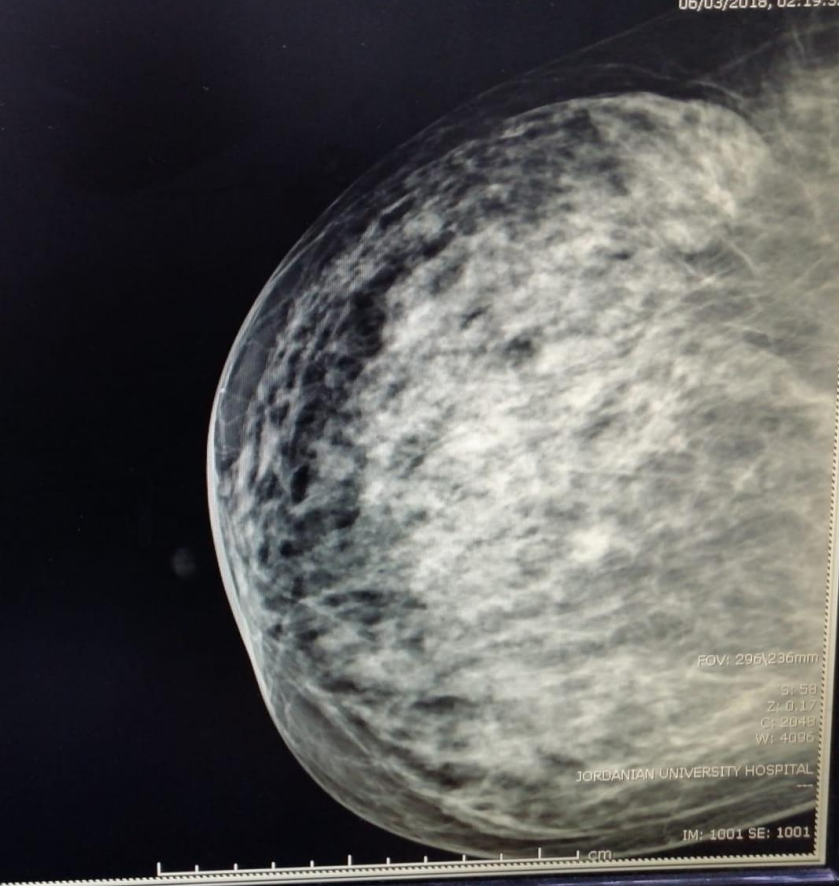
Vascular thickening and regular round masses which are lymph nodes
Ln are associated with benign condition, how : masses on muscle and



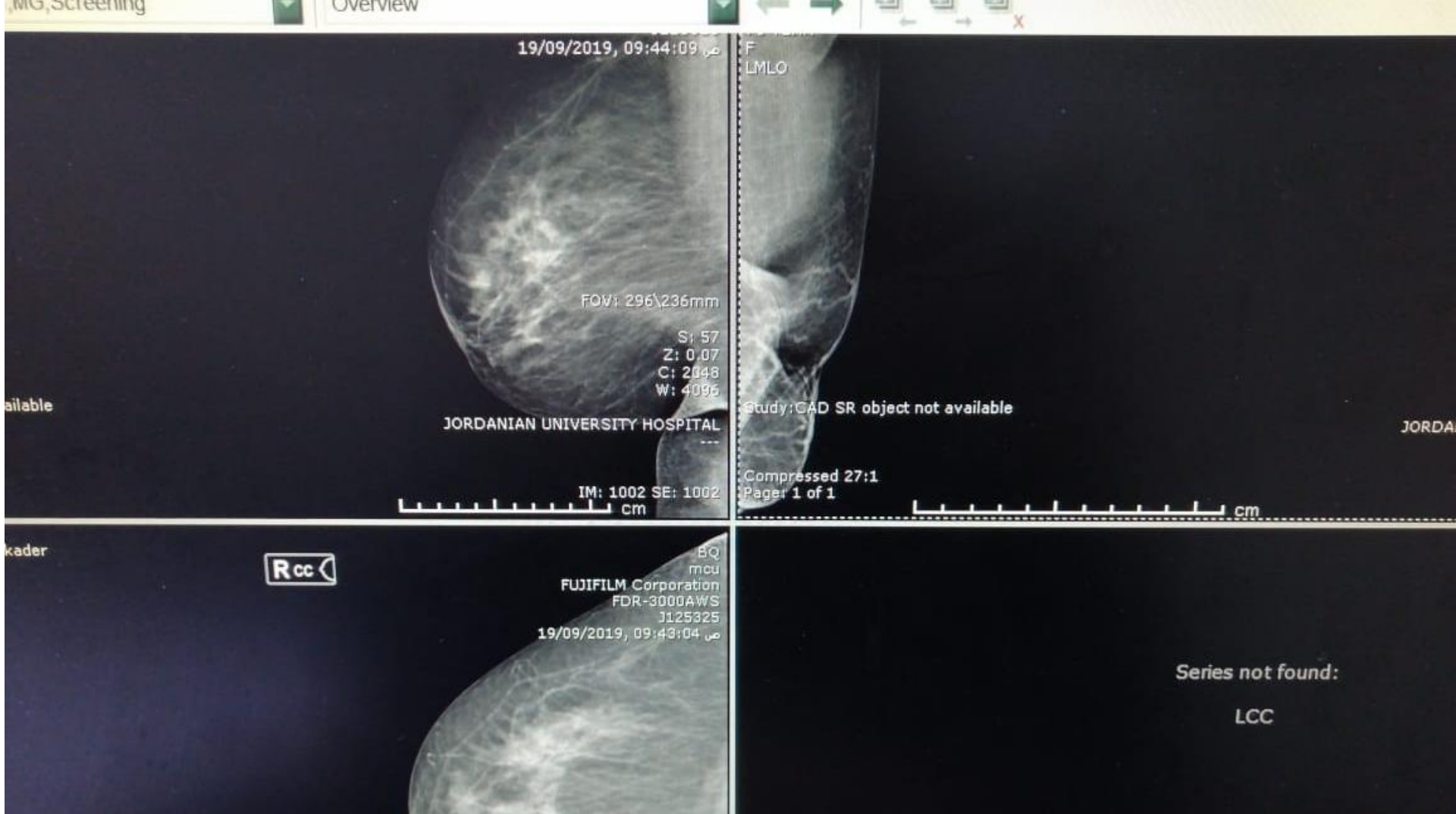
Blood vessels are not seen unless they are calcified malignant
Ln malignant j large irregular with presence of irregular masses



- More than 1 quadrant
- Filloidus tumor



All malignant features



No left breast j post mastectomy
Reconstruction is done after the treatment is over to
avoid infection
Dense tissue = appears as net
Diffuse calcification : dots not net