

MAMMOGRAM

CONVENTIONAL & DIGITAL

- ***IT IS NON USED FOR YOUNGER WOMEN BECAUSE THEIR DENSE BREAST TISSUE GIVES FALSE POSITIVE RESULTS***
- ***BUT IT IS GOOD FOR THE SOFT BREASTS BECAUSE THE GLANDULAR TISSUE IS SEPERATED BY FAT PLANES***

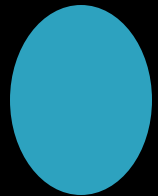
MAMMOGRAM

MALIGNANT

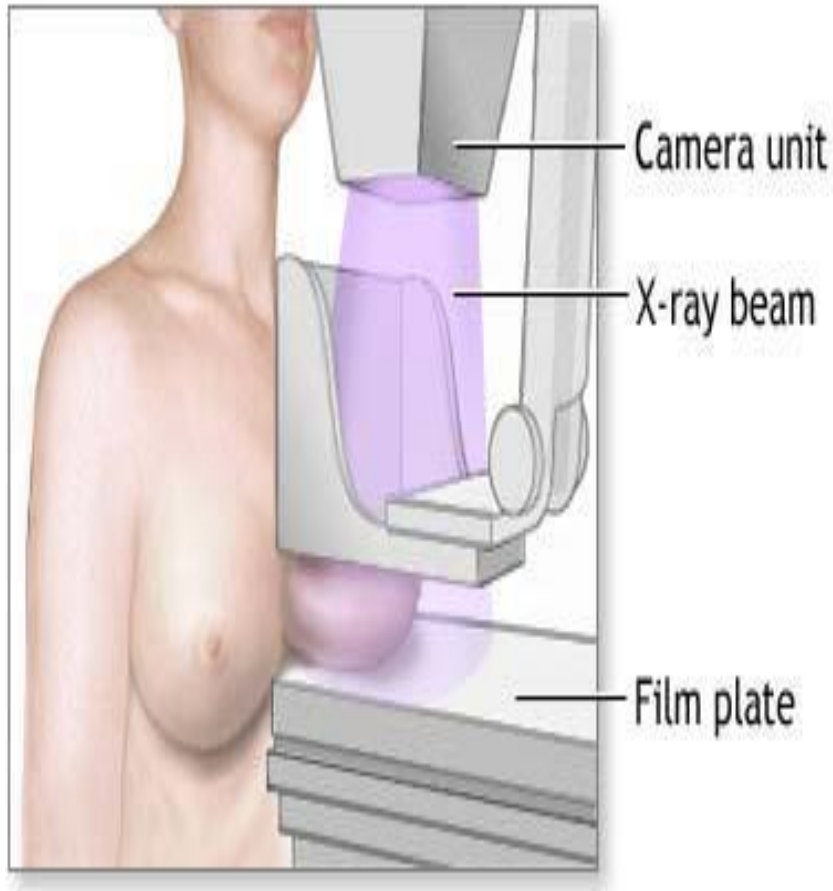
- ▶ 1-CALCIFICATION;
CLUSTER[5-6] OF BRANCHED FINE
MICROCALCIFICATION
- ▶ 2-ARCHITECTURAL CHANGES;
SPIKY DENSE IRREGULAR MASS

BENIGN

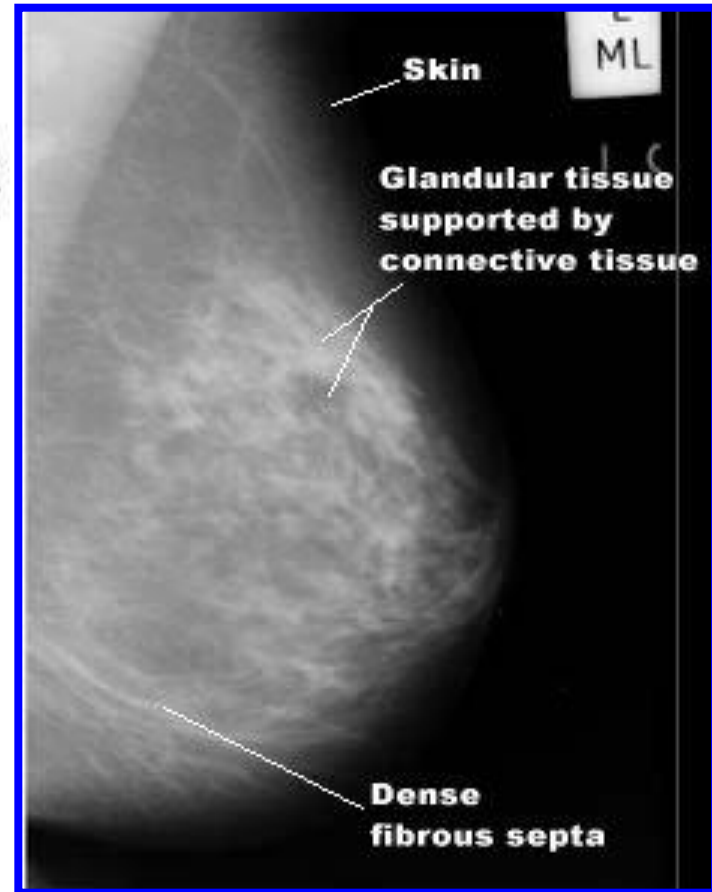
WELL DEFINED ROUNDED MASS WITH
HALO SIGN; CYST, FIBROADENOMA



Soft Tissue Mammography



Technique



Normal

Continue

SOFT TISSUE MAMMOGRAPHY

• Technique

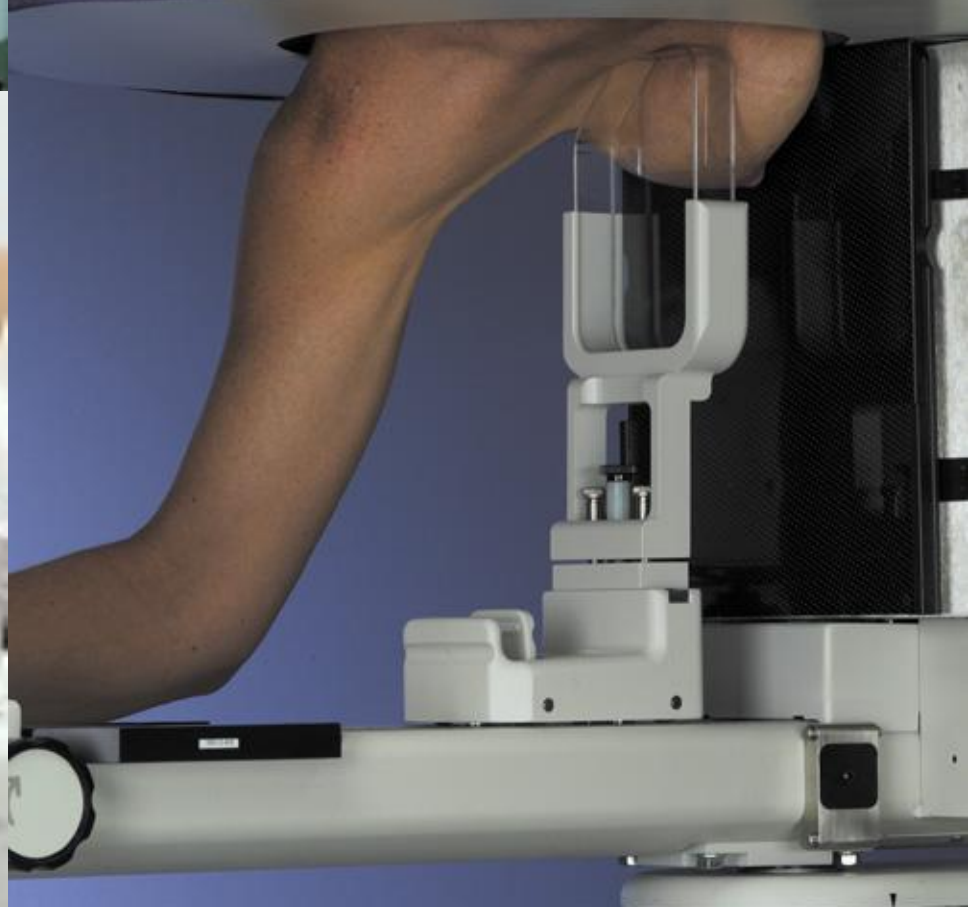
- ① Ordinary plain X-ray for the breast
- ② Xeroradiography :
(More easy & Clear to read)
The image is recorded
on Selenium plate

• Indications

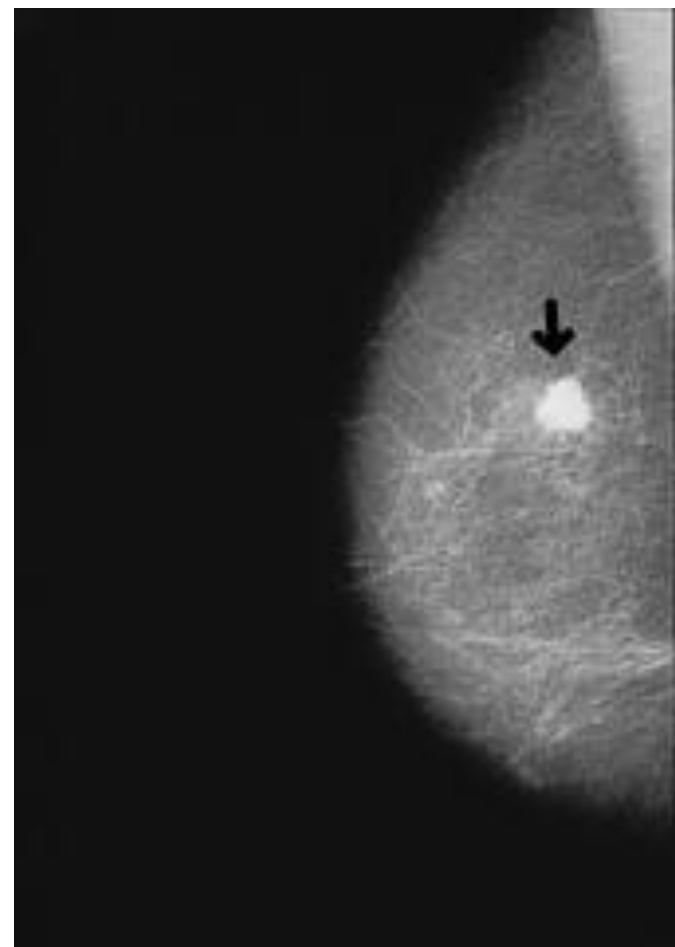
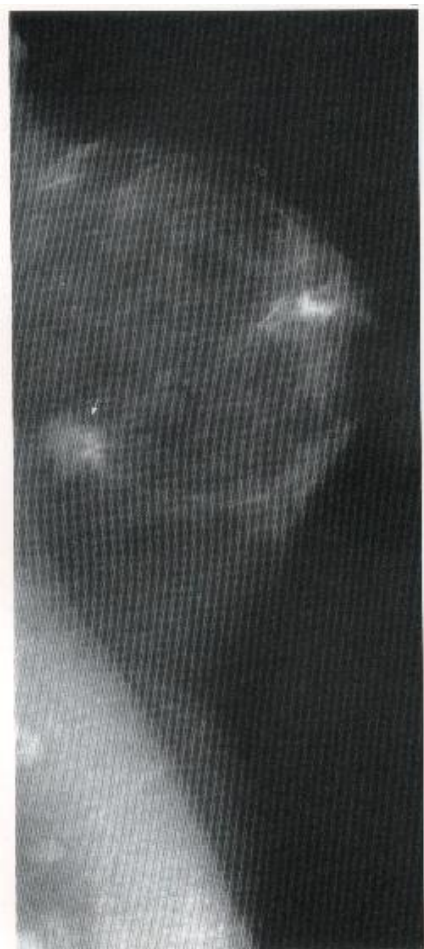
- ① Screening for **high risk group**
- ② Search for **Occult cancer** in female
with Metastatic disease
- ③ Evaluate **Non palpable breast mass**
- ④ Evaluate **Opposite** breast with
cancer another breast



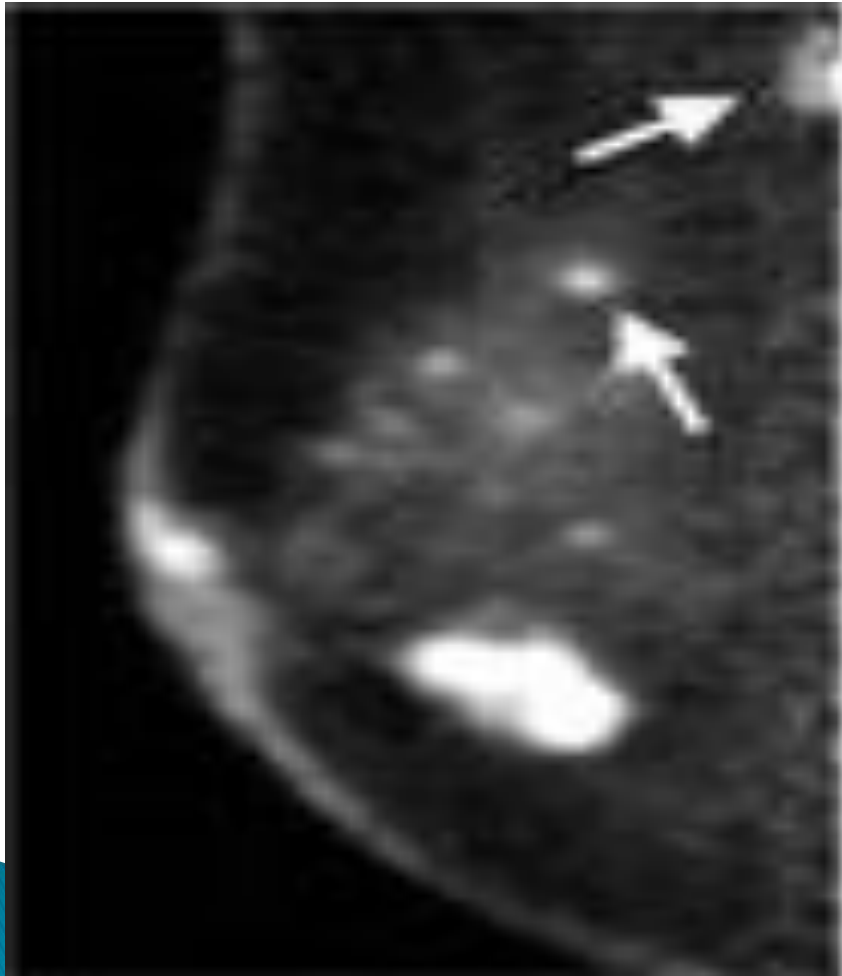
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Mammography images

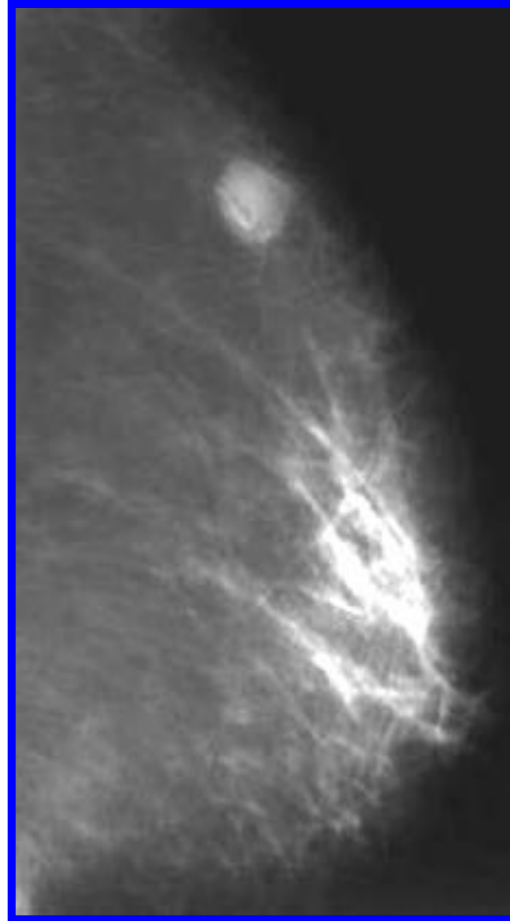
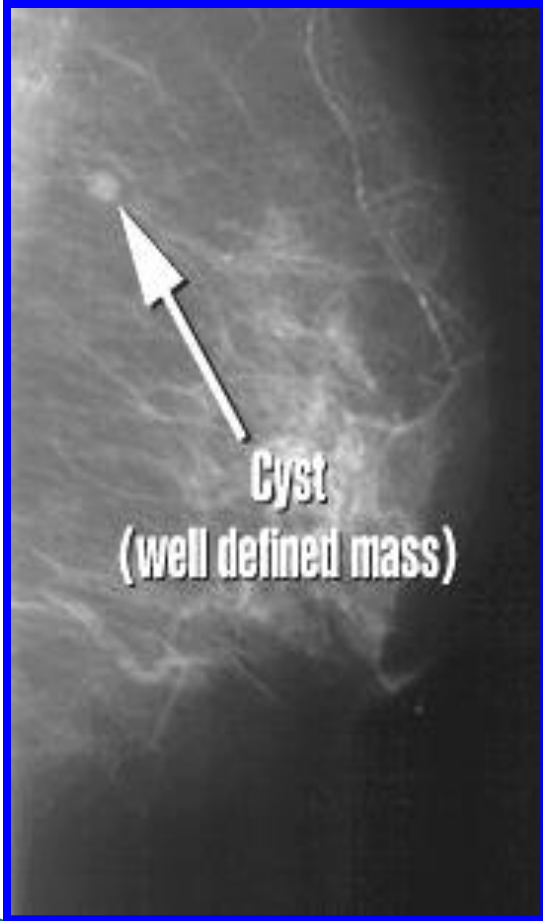


POSITRON EMISSION MAMMOGRAM SHOWS [MULTIFOCAL LESION]



CC

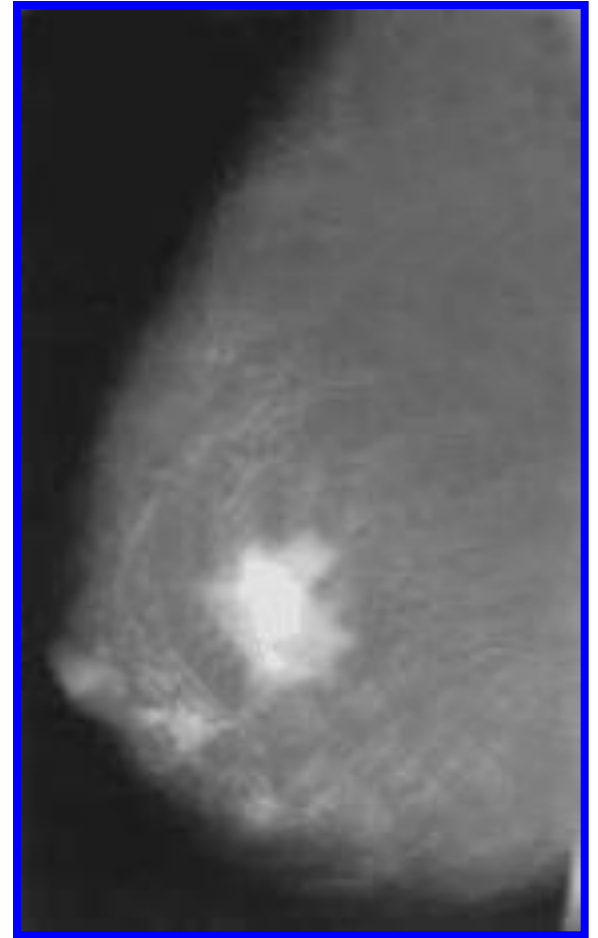
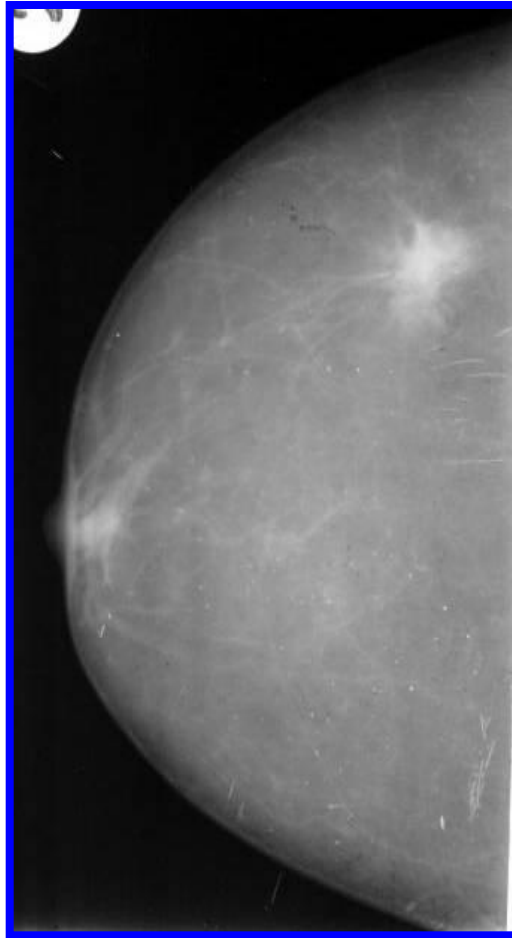
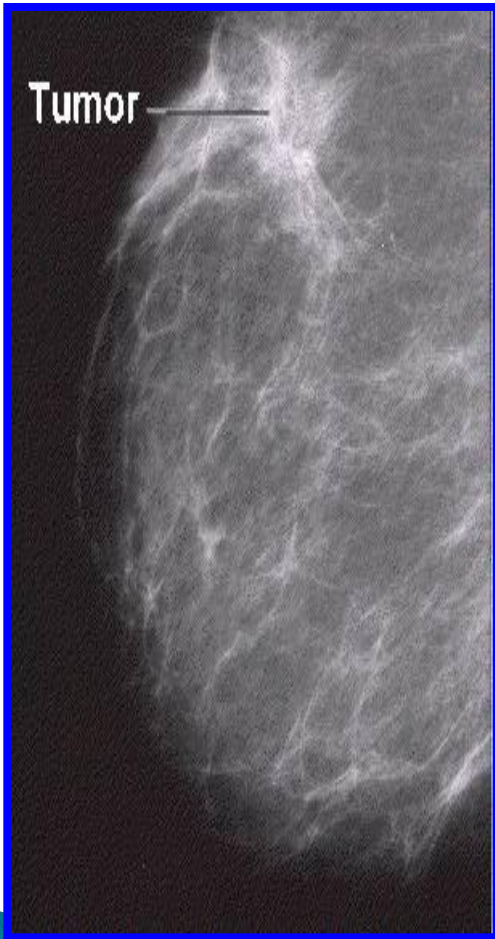
1. Benign Lesions



Fibroadenoma or Cyst

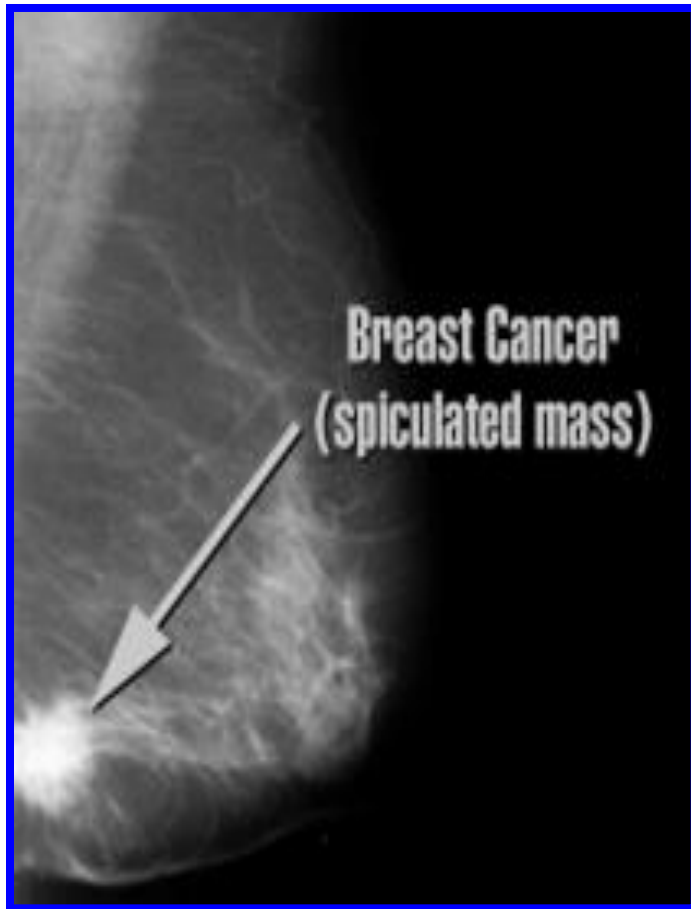


2. Malignant Lesions



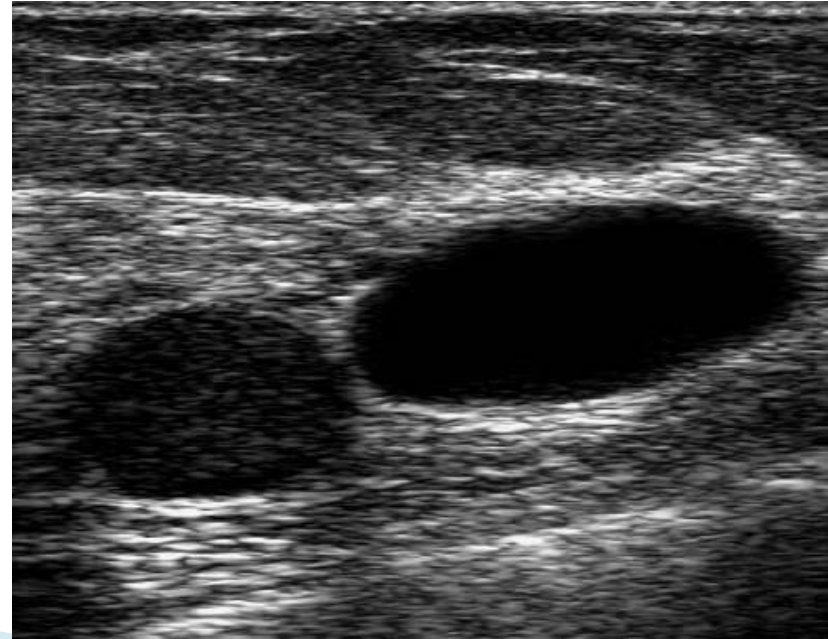
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Malignant Lesions



Early detection

- ▶ **Ultrasound**
 - Usually done in addition to the mammogram.
 - Shows whether a mass is filled with fluid or solid. Cancers are solid.
 - Not 100% accurate



MRI

IS THE MOST SENSITIVE

1 – CAN PICK UP CARCINOMA IN-SITU

**2 – DIFFERENTIATES BETWEEN LOCAL
RECURRENCE AND FIBROSIS**



MRI

- **NO RADIATION BUT MAGNETIC FIELD**

- **1-CAN VISUALIZE A PALPABLE MASS WHICH IS NOT SEEN ON U/S OR MAMMOGRAM**

- **2-CAN BE USEFUL IN YOUNG WOMEN**

- **3-CAN LOCATE BREAST CANCER WITH AXILLARY L.N. METS BUT BREAST FREE ON US OR MAMMOGRAM**

- **4-CAN DETECT MULTICENTRIC LESION**

- **5-CAN DIFFERENTIATE BETWEEN RECURRENCE AND FIBROUS TISSUE**

- **6-CAN DETECT SILICON LEAK**

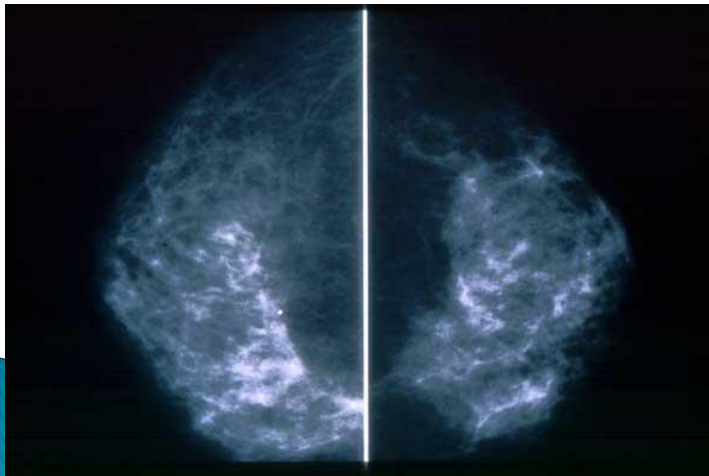
- **DISADVANTAGES**

- **1-CANNOT DETECT CALCIFICATIONS**

- **UBOS: UNIDENTIFIED BRIGHT OBJECTS**

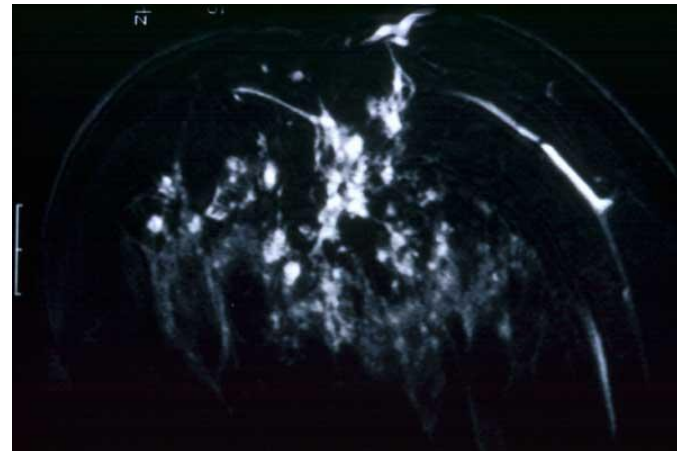
- **DISLODGE CERTAIN METALS; RACEMAKER**

Side-to-Side



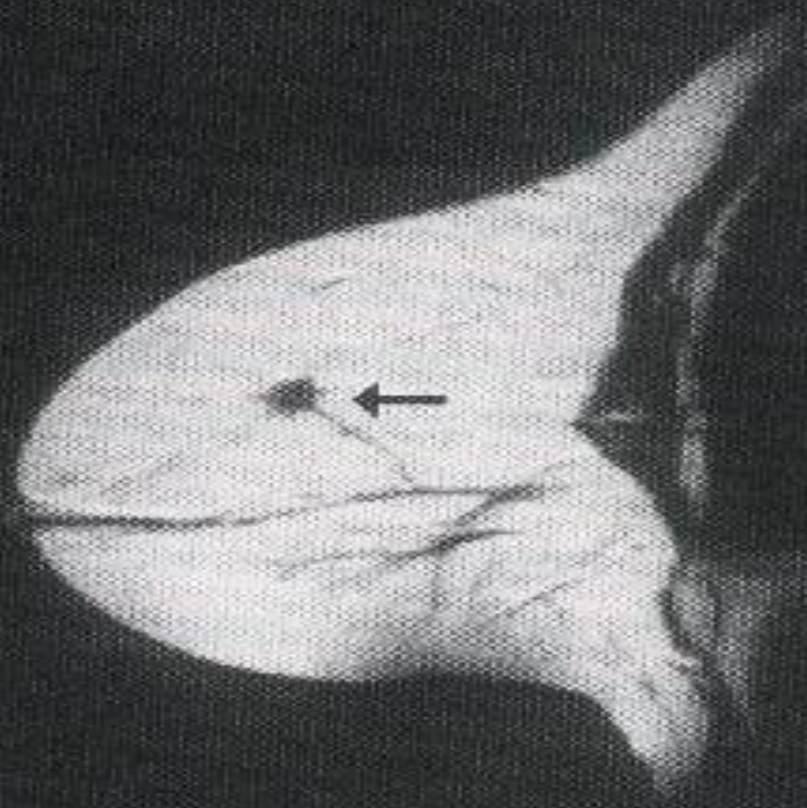
Top-to-Bottom

MRI - Cancer can have a unique appearance – many small irregular white areas that turned out to be cancer (used for diagnosis)



000013/9/2 0MM
TR=2.0 TE=80

C



DIPS IDE DIAG IMAGING ASSOC. PRONE

B