

# Percutaneous Stereo Core Biopsies: When, How & Often



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# Percutaneous Core Breast Biopsies

- Abbreviations used
  - FWLB = Fine Wire Localized breast Biopsy
  - MIBB = Minimally Invasive Breast Biopsy
  - Core = Automated, large core
  - Vac = Directional, Vacuum-Assisted

# Percutaneous Core Breast Biopsies

- Technique easy to learn
- Tissue collection for histology
- Less invasive and as accurate as FWLB

# Percutaneous Core Breast Biopsies

- Used to establish a tissue diagnosis
- Benign – observation and no surgery
- Malignant – surgery reduced to a “one step” from “two step”

# Percutaneous Core Breast Biopsies: Cancer Misses by Stereo & FWLB

Biopsy Type	Cancer Misses
14-G Core <sup>1</sup>	4%
11-G Vac <sup>2</sup>	1%
FWLB <sup>3</sup>	2%

1 = Jackman, *Radiology* 1999;210:799

2 = 6 studies

3 = Jackman, *Radiology* 1997; 204:677

# Percutaneous Core Breast Biopsies

- Image guidance:
  - Stereo taxis
  - Ultrasound
  - MRI

# Percutaneous Core Breast Biopsies

- Tissue sampling
  - 12 or 14 g automated core biopsy needles
  - 9 or 11 g directional vacuum assisted probes
  - 9 or 11 g titanium vacuum assisted probes
- COST Difference \$\$

# Percutaneous Core Breast Biopsies

- Stereotactic Bx by vacuum preferred over core
  - Significant decreased cancer misses, DCIS underestimates, ADH underestimates, calcification misses and rebiopsies
- Increased cost and complications
- Availability

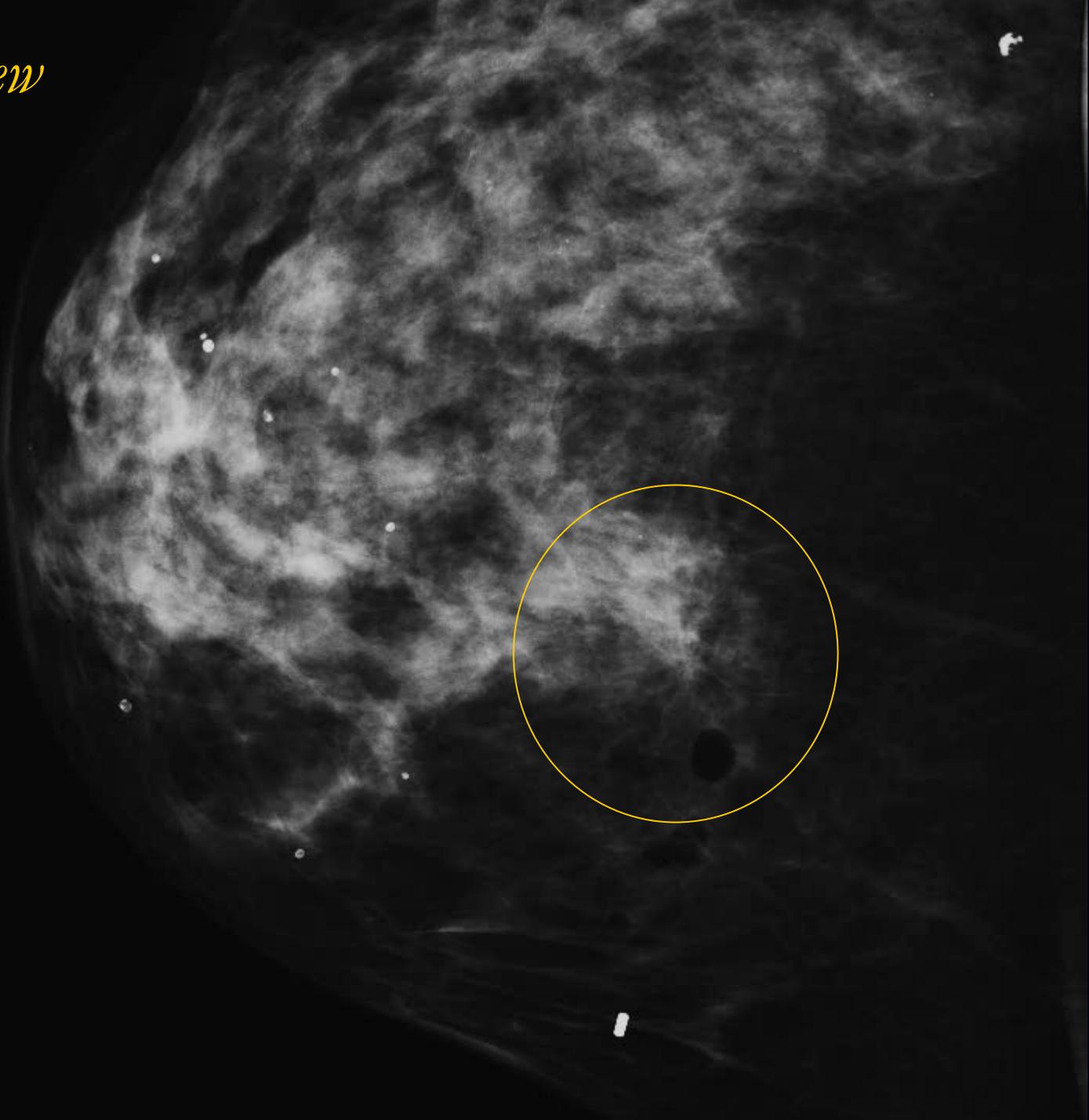
# Percutaneous Stereo Core Biopsies

- Lesions which are only seen on mammogram
- Majority are calcifications with no mass

# Percutaneous Stereo Core Biopsies

- Asymmetric densities
- Architectural distortion
- Masses not seen at U/S

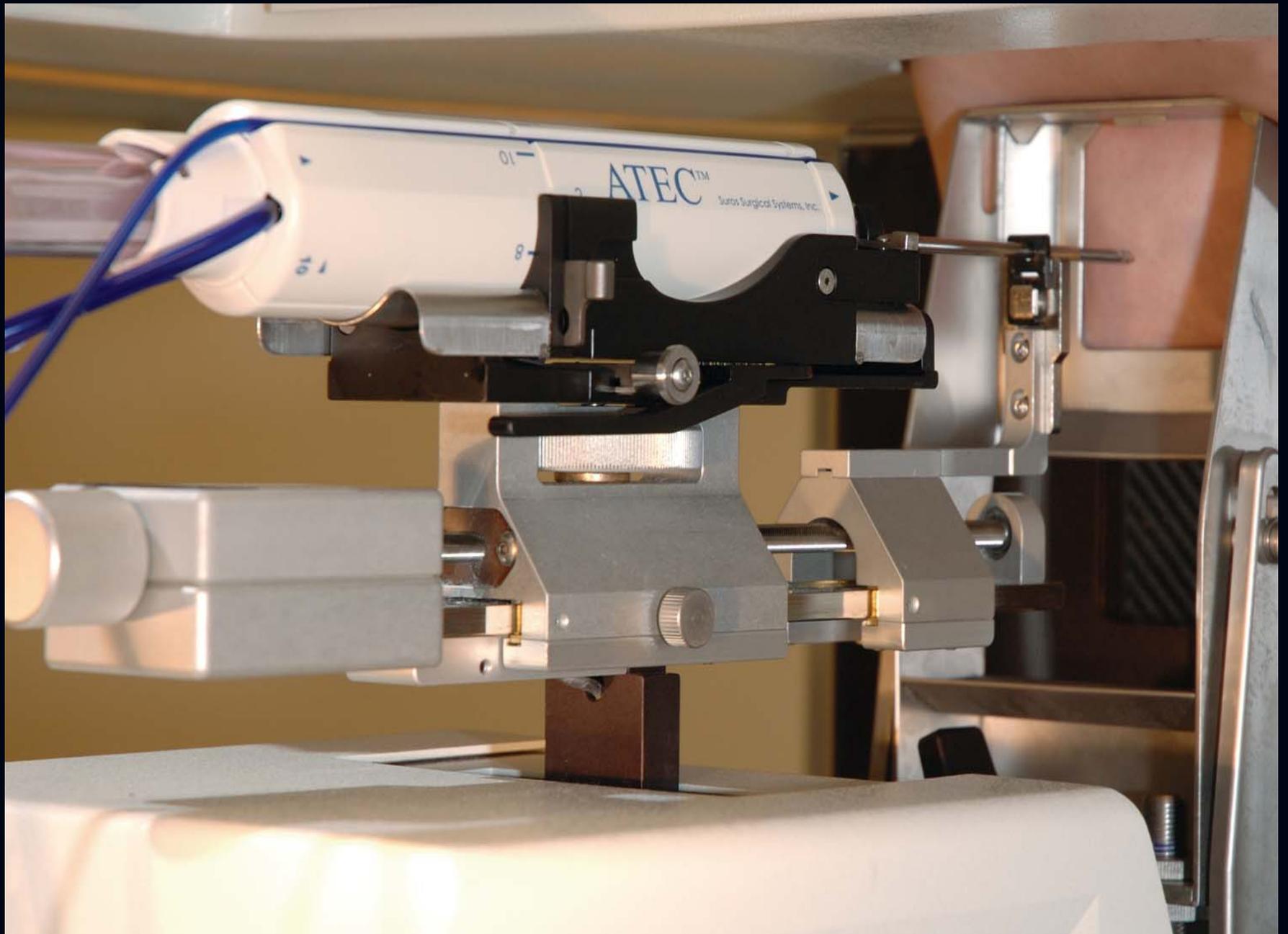
*CC View*



# Percutaneous Stereo Core Biopsies

- Dedicated prone tables
- Add-on units
  - Patients who can't lie prone
  - Cost saving \$\$





# Percutaneous Stereo Core Biopsies

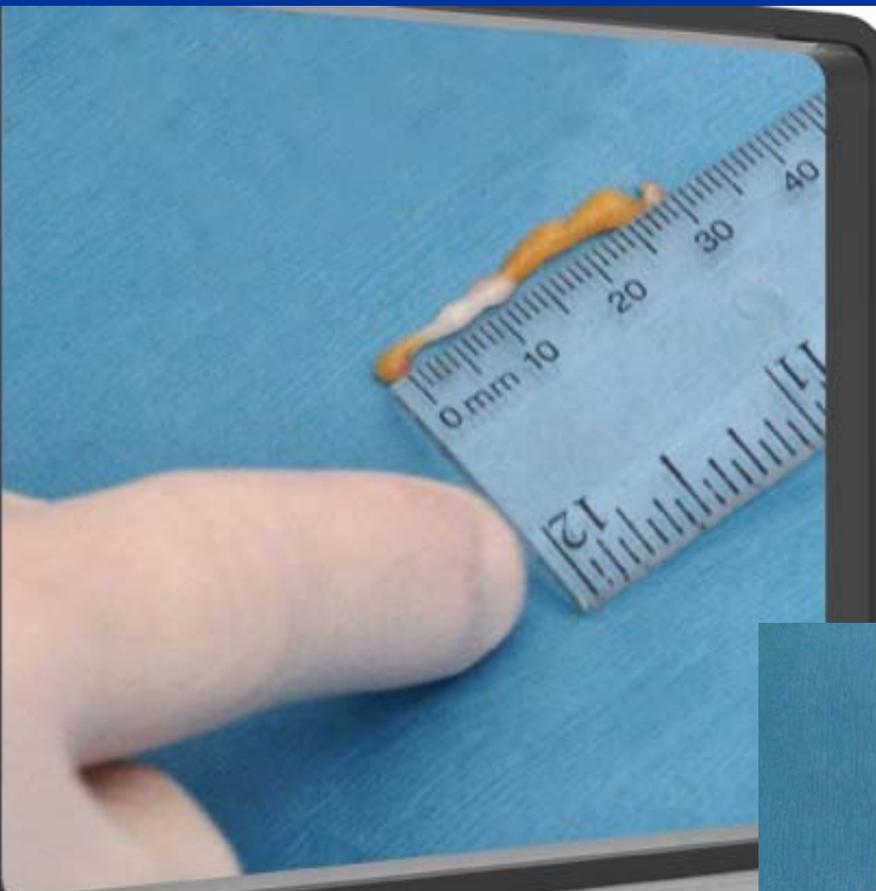
- Two images 15 degrees off midline
- Depth (z axis) calculated by computer
- Small field digital imaging

# Percutaneous Stereo Core Biopsies

- Lesion targeted using shortest pathway
- Skin cleansed
- Local anaesthetic prior to and during biopsy

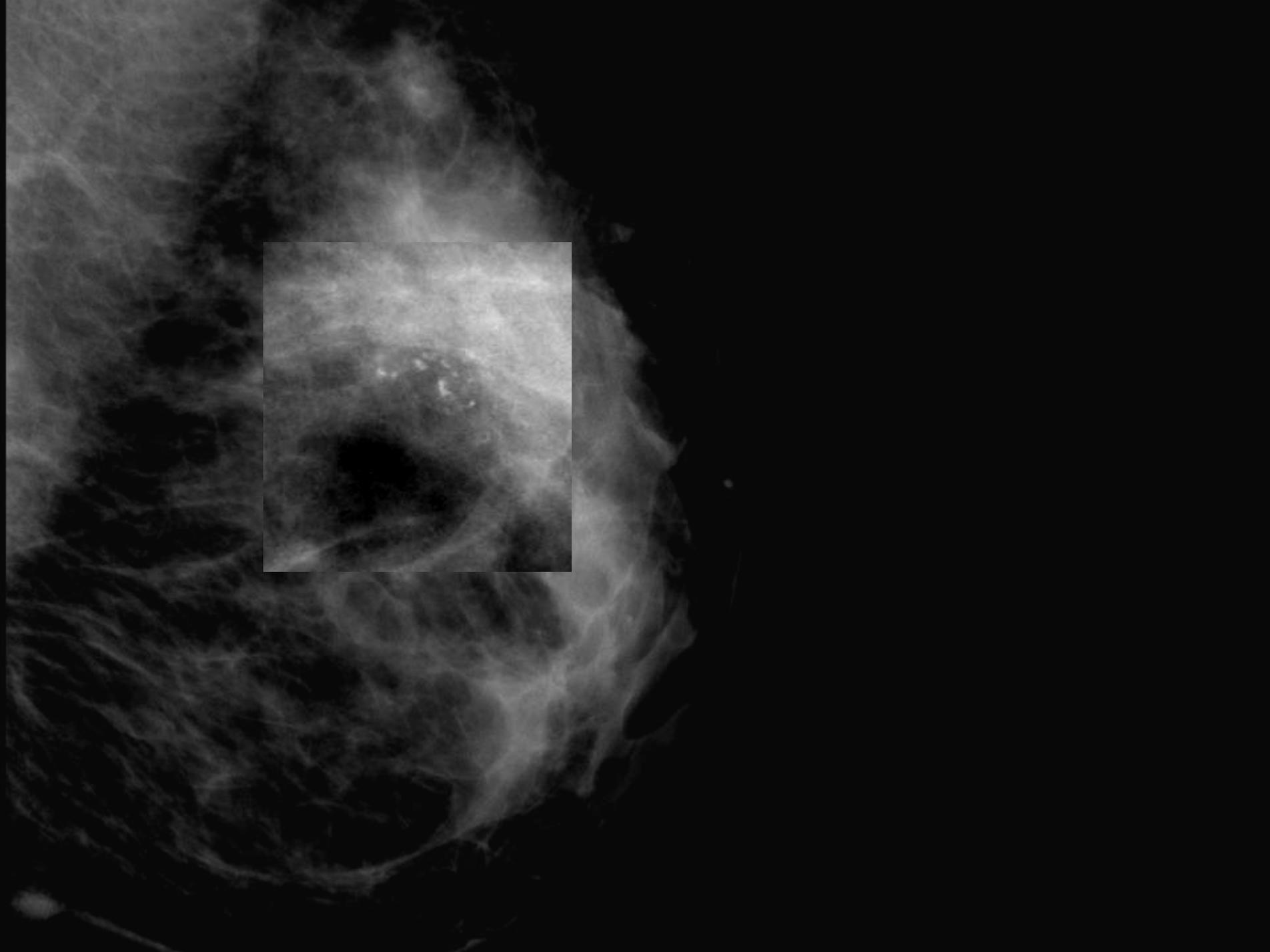
# Percutaneous Stereo Core Biopsies

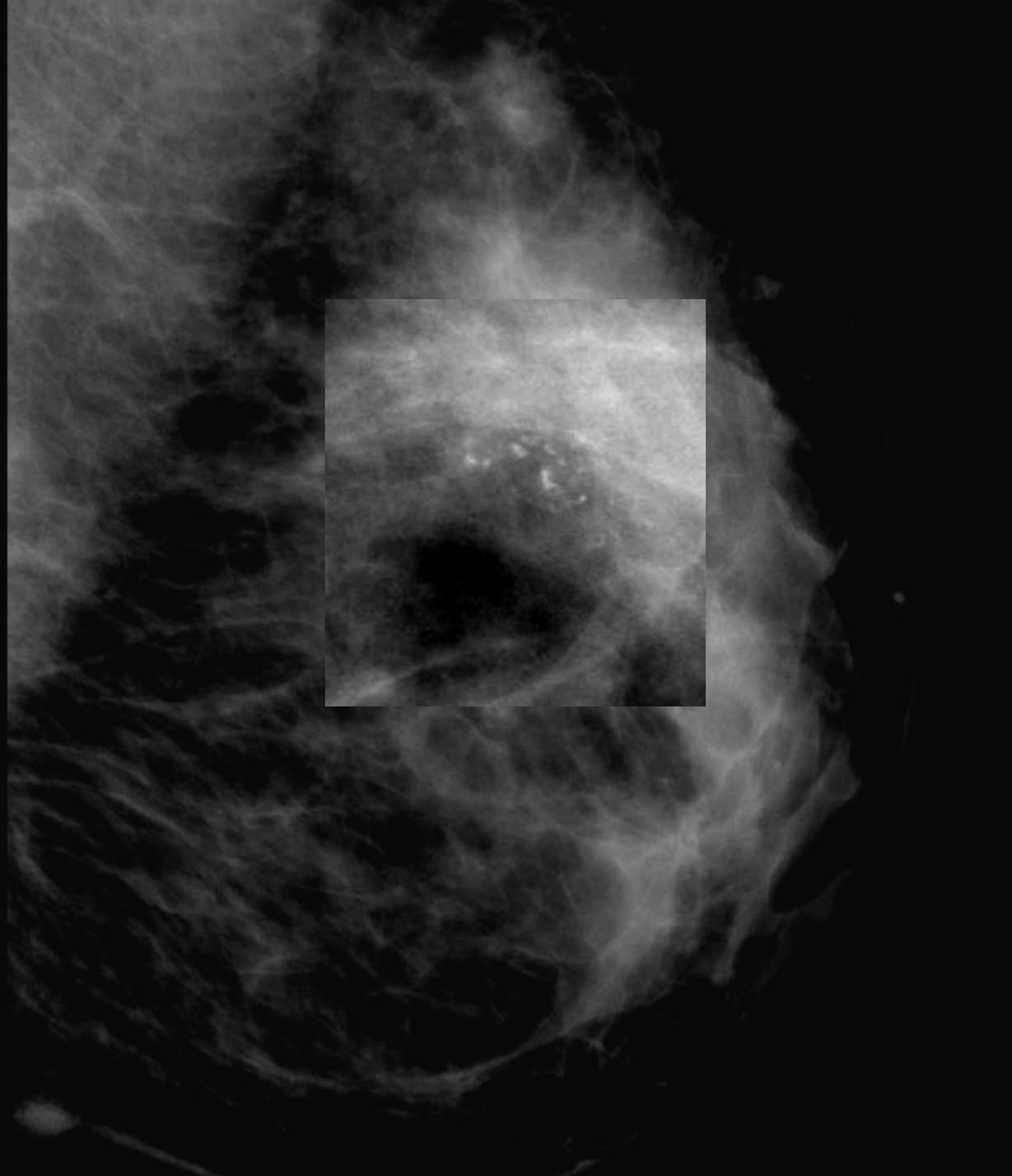
- Small skin incision
- Probe is “fired” into the lesion
- Pre and post fire stereo images
- 6 – 12 or > specimens with post collection specimen images



# Case # 1

- 44 yr. old woman
- 1<sup>st</sup> mammogram
- No family history of breast cancer





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