



New side approach biopsy technology for clinical confidence

Experience with Pristina Serena™ at Carolina Breast Imaging Specialists (CBIS)



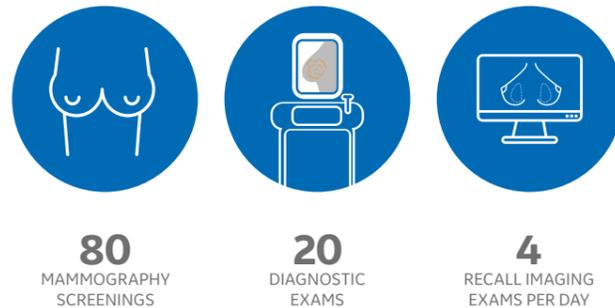
Dr Bruce F. Schroeder, MD
Medical Director
Carolina Breast Imaging
Specialists, Greenville, NC

Pristina Serena gives CBIS Technologists the option to access the breasts with a newly designed side approach. This creates a large working space to simplify patient positioning, reduces needle visibility to help ease patient anxiety, and provides access to challenging lesions. Additionally, mammography screening and biopsy can be performed in the same room.

A full-service center

CBIS, in Greenville, NC, is dedicated to breast imaging and the early detection of breast cancer. Its mission is to provide state-of-the-art patient care in a comfortable environment. Services include screening and diagnostic mammography, contrast-enhanced spectral mammography (CESM), Automated Whole Breast Ultrasound (ABUS), handheld breast ultrasound, ultrasound and stereotactic breast biopsy and ductography.

Dr. Bruce Schroeder, Board-Certified Fellowship trained, Breast Imaging Radiologist, notes that on average the center and its affiliated offices perform 80 mammography screenings (all using tomosynthesis), 20 diagnostic exams, and 4 recall imaging exams per day in addition to biopsies.



» Patient flow

Screening exams are performed throughout the day and read in batches off-line. When necessary, patients are recalled for additional imaging, usually an ultrasound. If biopsy is required, it is often conducted during the diagnostic visit or in another scheduled appointment. Before installation of the Pristina Serena system, stereotactic biopsies were performed on a Senographe Essential mammography system. About 15 to 20 percent of biopsy cases are complex or challenging, most notably thin breasts and lesions that require the CC from below approach. Accessibility to the breast is critical to accuracy, especially in challenging cases.

» Economic advantage

The Pristina Serena system fits in the existing room configuration. Dr. Schroeder observes, "CBIS would otherwise have had to buy an expensive piece of equipment for biopsies and devote an entire large room to a device that is only used a few times a day, at most."

Katie Brown Davis, RT(R)(M)(BS), Mammography and Breast Ultrasound Technologist, states, "We have a room that does both mammography and biopsy. This is much more efficient than having a dedicated biopsy room that can't be converted to do regular mammograms when necessary."

» Benefits to patients

Dr. Schroeder notes the upright feature of the Pristina Serena system enables more face-to-face contact with the patient. "There is limited chest-wall dead space. It is easier to position some patients in a chair instead of having them climb up on the prone table. Overall, the system provides speed, comfort and accuracy."

» Non-challenging cases

Dr. Schroeder reports that biopsies on non-complex or non-challenging cases take about 15 minutes to perform: "The advantage of the Pristina Serena in these cases is that it enables a fast biopsy." Davis observes that the system's thin bucky makes it easy to position patients and keep them comfortable. She also appreciates the foot pedal, large paddles, and the quality of image display on the acquisition workstation. "The side approach is now user-friendly, and the remote angulation saves time," she says.

» Challenging cases

Accessibility is critical for accurate biopsy procedures, especially when facing challenging cases. Davis states that challenging cases are those that need the lateral arm/side approach, where the positioning was difficult due to patient body habitus or lesions that are difficult to access such as deep lesions and those close to the nipple. According to Dr. Schroeder, performing biopsies on Pristina Serena on a complex or challenging case takes 20 to 30 minutes. He noted that the key advantages of the Pristina Serena system are fast procedures and high-quality images. He says, "Side approach is now no more complicated than vertical so we used it more rather than avoided it." "I am more likely to use the side approach for difficult cases", Davis adds.

» Side approach to biopsy

Pristina Serena has the option of accessing the breast with the newly designed side approach to: create a large working space to ease patient positioning, reduce needle visibility to help ease patient anxiety, and accurately access lesions. Dr. Schroeder shared his experience "Having used a prone table for years, the move to upright biopsy on the Senographe Essential was scary. However, after the first few cases it became clear that this was preferred by the Radiologist and Technologist". He mentions that the side approach provides an advantage in that the needle is not near the patient's face. It also allows access to locations in the breast that were otherwise either inaccessible or very cumbersome to work with. Davis adds, "It is user friendly and it is now easy to convert from vertical to side when needed. We appreciate how easy this is."

The Senographe Pristina Serena system is enabling CBIS to perform fast and accurate breast biopsies. The technology is helping the center fulfill their mission.

"The experience with Pristina Serena takes biopsy to a whole new level," says Dr. Schroeder. "The procedures are fast, images are processed almost instantaneously, targeting is simple, and the biopsy system has been optimized. The side approach is now just as easy as the vertical and we actually prefer it to vertical."

Katie Brown Davis
RT(R)(M)(BS)



We have a room that does both mammography and biopsy. This is much more efficient than having a dedicated biopsy room that can't be converted to do regular mammograms when necessary.

Clinical cases



CASE 1

VERTICAL APPROACH

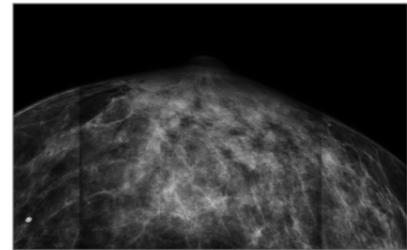
HISTORY

Female, age 55
 Menarche – 14 years
 First full-term pregnancy – 27 years
 Postmenopausal
 Sister had breast cancer
 Last mammogram 2 years,
 5 months ago

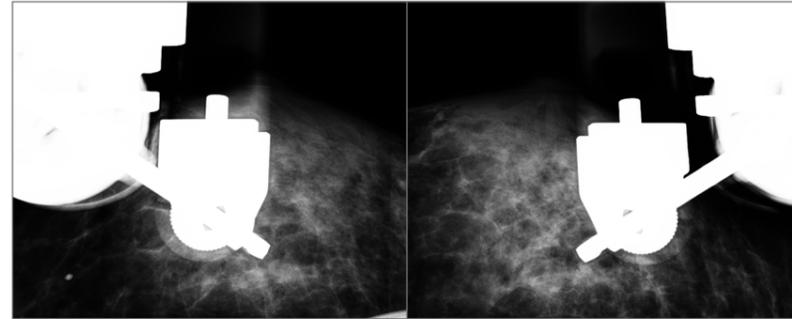
IMAGING FINDINGS/ PATHOLOGY REPORT

Right breast tissue was extremely dense
 Indeterminate calcifications in the
 right 12 o'clock breast
 Stereotactic core biopsy
 Ductal carcinoma in situ, Grade II
 Estrogen receptor: Positive (100%)
 Progesterone receptor: Positive (1%)
 Her 2/neu: Negative

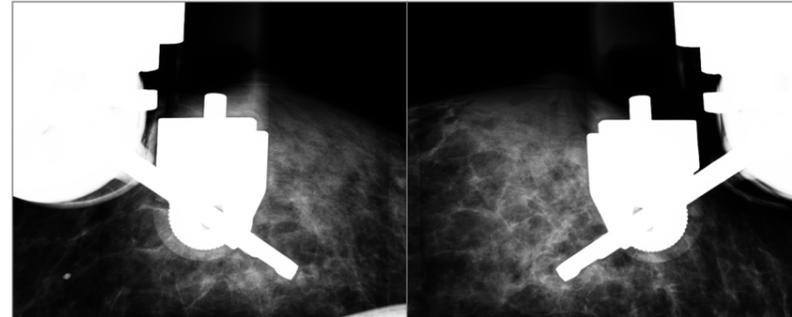
SCOUT



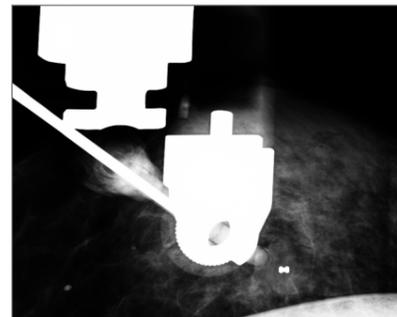
PRE FIRE



POST FIRE



CLIP



CASE 2

SIDE APPROACH

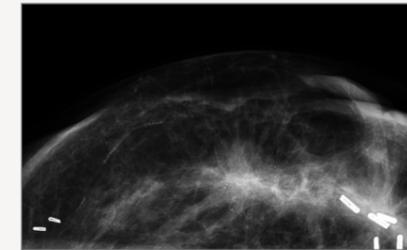
HISTORY

Female, age 47
 Menarche – 12 years
 First full-term pregnancy – 17 years
 Postmenopausal
 Breast cancer left, age 30
 Mother had breast cancer, age 50
 Maternal aunt had breast cancer,
 age 50+
 Last mammogram 1 year,
 3 months ago

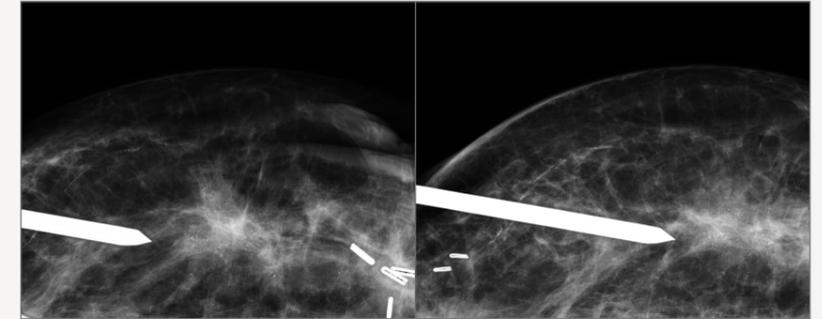
IMAGING FINDINGS/ PATHOLOGY REPORT

Post left breast lumpectomy
 New multiple calcifications
 superimposed over lumpectomy
 Possible lateral irregular density
 Stereotactic left core biopsy
 Invasive ductal carcinoma, Grade II
 Ductal carcinoma in situ, high
 nuclear grade
 Estrogen receptor: Positive (96%)
 Progesterone receptor:
 Positive (92%)
 Her 2/neu: Negative

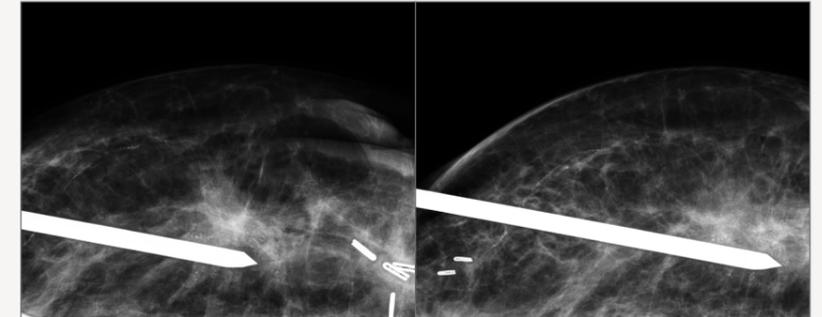
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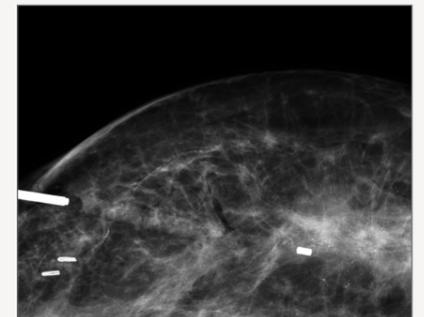
PRE FIRE



POST FIRE



CLIP



CASE 3

VERTICAL APPROACH

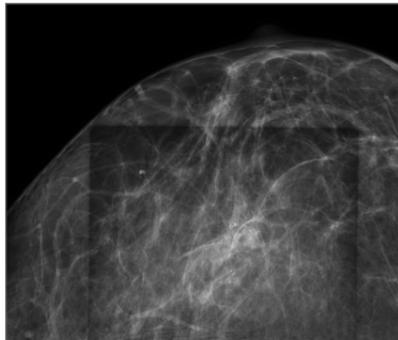
HISTORY

Female, age 51
Postmenopausal, previous other cancer at age 25
Maternal aunt had unknown cancer
Hormonal contraceptives for 12years, estrogen for 6 months
Last mammogram 1 year, 3 months ago

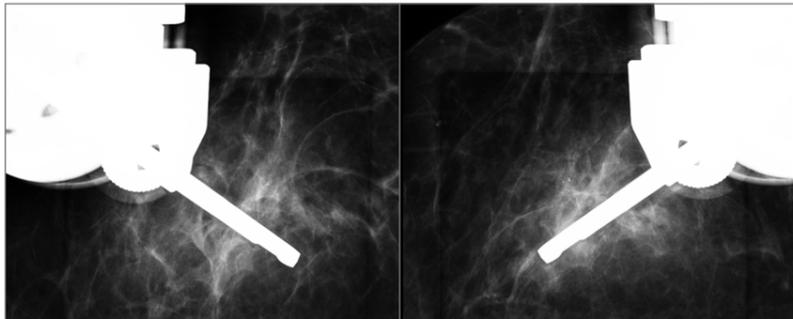
**IMAGING FINDINGS/
PATHOLOGY REPORT**

Scattered fibroglandular densities
Developing calcifications in the left 12 o'clock breast
Stereotactic core biopsy
Ductal carcinoma in situ, Grade III
Estrogen receptor: Positive (81-90%)
Progesterone receptor: Positive (21-30%)

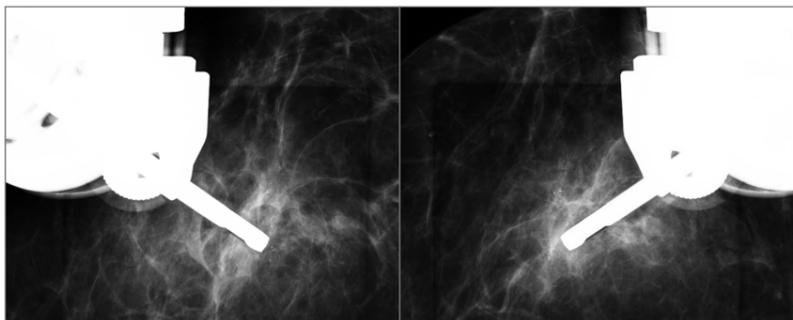
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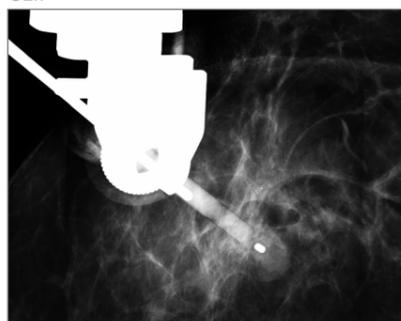
PRE FIRE



POST FIRE



CLIP



CASE 4

SIDE APPROACH

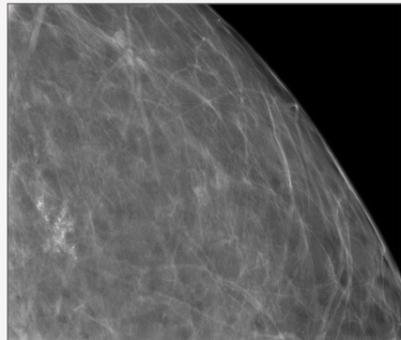
HISTORY

Female, age 56
No known family history of breast cancer

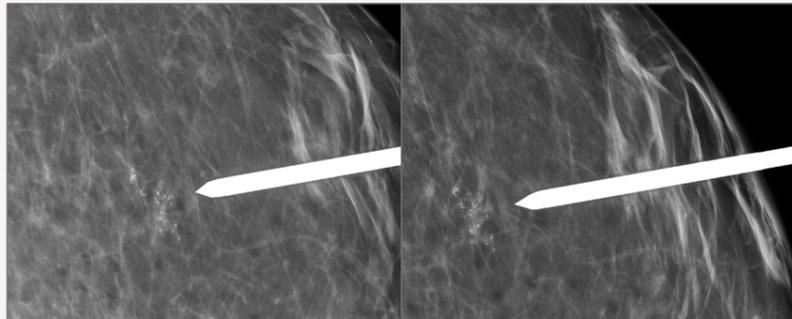
**IMAGING FINDINGS/
PATHOLOGY REPORT**

Breast tissue almost entirely fat
Calcifications in the lateral right breast
Stereotactic core biopsy
Ductal carcinoma in situ, high nuclear grade

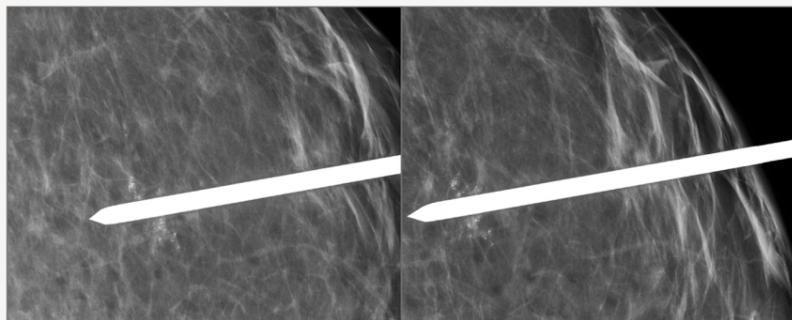
SCOUT



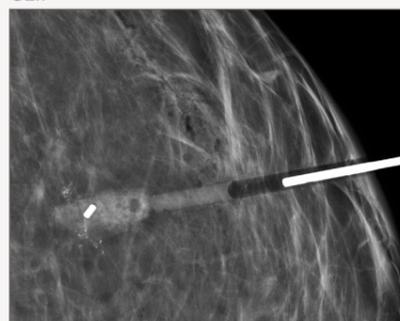
PRE FIRE



POST FIRE



CLIP



CASE

VERTICAL APPROACH

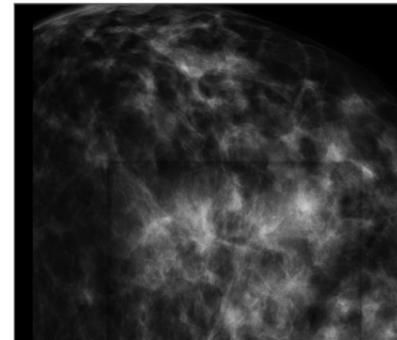
HISTORY

Female, age 59
Menarche - 14years
No children
Estrogen for 10 years, age 45-55
Postmenopausal
Paternal grandmother had ovarian cancer, age 40

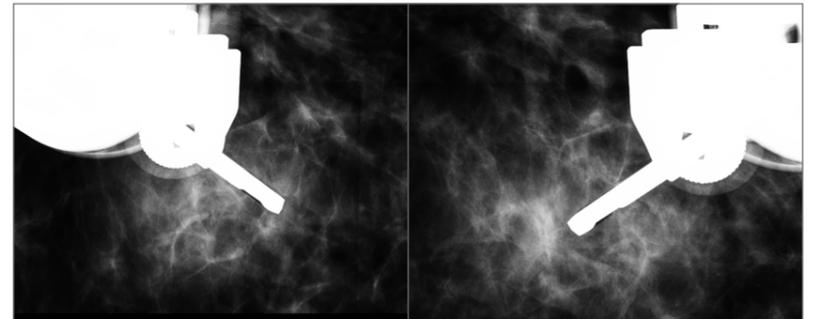
**IMAGING FINDINGS/
PATHOLOGY REPORT**

Bilateral heterogeneously dense breasts
Focal architectural distortion middle third, right breast
Very subtle distortion, central 9 o'clock
Stereotactic core biopsy
Invasive ductal carcinoma, Grade II

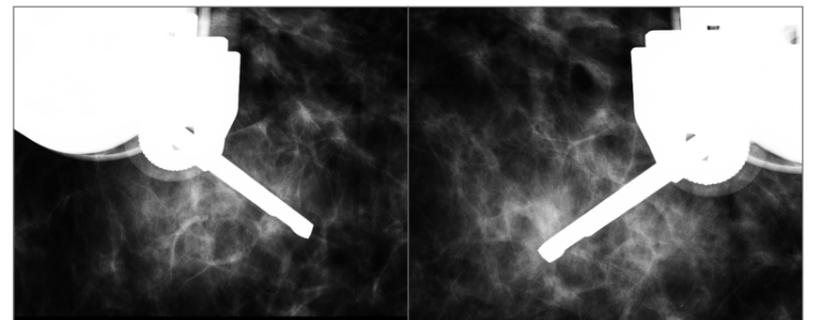
SCOUT



PRE FIRE



POST FIRE



CLIP





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GE imagination at work

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