

Sampling a Solid Mass Adjacent to an Implant

CLINICAL SITUATION:

The patient, a 39-year-old female, presented with a palpable abnormality in the right breast, immediately adjacent to a subglandular implant. The palpable solid mass was located at the 12:00 location, 5cm from the nipple.

FINDINGS:

Sonography: Sonographic evaluation identified a hypoechoic solid nodule measuring 7mm x 9mm x 8mm, immediately adjacent to the implant capsule (FIG. 1.1).

Findings showed no evidence of internal vascularity. Biopsy was recommended.

PROCEDURE:

Anesthesia was placed around the solid mass, but could not be placed beneath it due to its proximity to the implant. Under ultrasound guidance, a 13-gauge Mammotome elite biopsy device was inserted through the superior aspect of the lesion. In order to obtain samples as close to the implant capsule as possible, the Mammotome elite was oriented so that its sample aperture faced posteriorly toward the implant (FIG. 1.2). Seven samples were obtained.

Once the samples were collected, a butterfly-shaped HydroMARK biopsy site identifier was implanted in the biopsy cavity (FIG. 1.3).

PATHOLOGY:

Examination by pathology demonstrated invasive ductal carcinoma of the breast, Grade 1, involving multiple fragments and measuring at least 0.9cm. Small microcalcifications were also identified within the sample. Additionally, the large-sized samples provided adequate tissue to allow for evaluation of ER/PR sensitivity, as well as HER-2/neu and immunohistochemical stains.

DISCUSSION:

This suspicious solid lesion presented a challenging sampling scenario due to its close proximity to the breast implant. With a spring-loaded device, it would have been difficult to obtain samples without fear of damaging the underlying implant capsule. The vacuum generated by the Mammotome elite allowed it to obtain samples while being positioned far from the breast implant; subsequent imaging during the procedure showed the device "marching" through the lesion, obtaining adequate samples one after the other. Furthermore, Mammotome elite's cutting blade allowed smooth advancement through dense breast tissue. This ensured that the clinician was able to position the device's sample aperture to obtain adequate samples. These features allowed for increased confidence and accuracy during the biopsy procedure.

Courtesy: Christopher Ananian, M.D.
Princeton Radiology
Princeton, NJ

FIG. 1.1



FIG. 1.2



FIG. 1.3

