

## Ultrasound-Guided Wire Localization

### Clinical History:

51-year-old female presented for diagnostic breast imaging of a palpable lump in the right breast.

### Imaging Findings:

Diagnostic mammogram and breast ultrasound revealed a 1.9cm mass, highly suggestive of malignancy, in the right breast, upper outer quadrant, 10:00, middle third, 7cm from nipple. Ultrasound-guided core biopsy was recommended.

### Biopsy Procedure and Pathology:

Ultrasound-guided, vacuum-assisted biopsy using the Mammotome® EX device was performed. A MammoSTAR® tissue marker was deployed at the biopsy site adjacent to the residual mass (FIG. 1). Pathology results revealed an infiltrating ductal carcinoma, grade III.

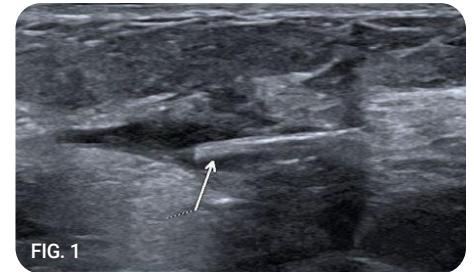
### MRI Imaging:

A pretreatment staging diagnostic breast MRI was performed. The residual enhancing biopsy-proven malignant mass was identified adjacent to a signal void corresponding to the MammoSTAR® tissue marker at 8 days after deployment (FIG. 2).

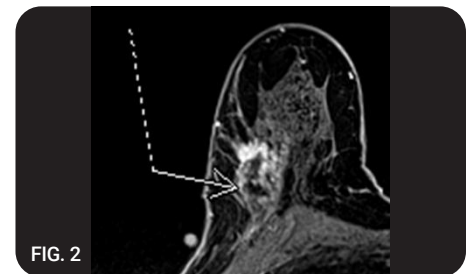
### Ultrasound-Guided Wire Localization:

Ultrasound-guided wire localization for definitive surgery was performed. Ultrasound evaluation of the MammoSTAR® tissue marker at 12 days (FIG. 3) revealed hyperechoic convex lines (beta-glucan carrier) adjacent to the residual malignant mass. The carbon-coated ceramic tissue marker (2 hyperechoic foci) is not always easily seen, but can be quite visible in certain patients.

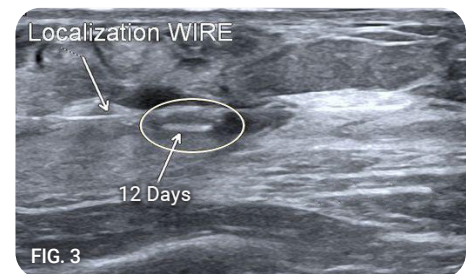
The post-procedure mammogram (FIG. 4) confirmed accuracy of the wire placement.



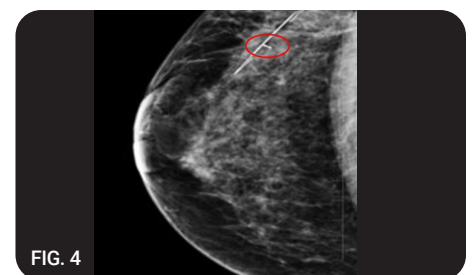
Immediate Deployment



8 Days



Wire Localization | 12 Days



Wire Localization Confirmation

Courtesy of Kimberly C. Hutcherson, MD/North Metropolitan Radiology Associates, LLP/Northside Gwinnett Breast Center/Northside Hospital Gwinnett.