Non-wire localization techniques for non-palpable lesions: moving beyond the wire

The use of fine wires for the localization of non-palpable breast lesions has been used for decades and remains the gold standard. However, this procedure has its limitations, including patient discomfort, surgical timing, dislodgement, and accuracy. Newer techniques have developed over time, which offer solutions to these inherent drawbacks of the wire. Radioactive seed localization (RSL) has been used for approximately 10 years, and allows surgeons to localize non-palpable breast lesions utilizing a gamma detection system akin to sentinel lymph node biopsy. RSL can be placed up to 5 days prior to operation, and studies have shown improved accuracy. Another, newer technique involves ultrasound visible clip placement at the time of biopsy, which can then be identified intra-operatively. This technique eliminates a second localization procedure altogether, though results are less robust than with the RSL. Even newer and more novel techniques involve the use of an infrared reflector placed up to 30 days prior to surgery, and intraoperative use of an infrared beam to localize this reflector. These techniques offer novel solutions to the age-old limitations of wires and will be discussed.

Biography
Jillian Lloyd, MD, MPH is a Board Certified General Surgeon, fellowship-trained in Breast Surgery. She was educated at Emory University for undergraduate, medical school, and public health. She completed General Surgery residency at The Mayo Clinic in Jacksonville, FL, and went on to complete a fellowship in Breast Surgery at The Bryn Mawr Hospital in Philadelphia, PA. She joined the faculty at the University of Tennessee Knoxville in September 2016. Her research interests include health disparities and cancer biology as it relates to outcomes.

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