Location, location, location! Review of various breast surgery localization devices with survey evaluation of our Breast Center specific preferences among breast radiologists and breast surgeons.
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None

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Purpose

Review of three common and very different breast surgery localization devices with evaluation of our Breast Center specific preferences for breast localization devices among breast radiologists and breast surgeons.
Background

Most patients with a diagnosis of breast cancer will undergo surgery as part of their treatment. Patients with small or non-palpable cancers may opt for breast conservative surgery with a segmental mastectomy. This often requires preoperative image-guided placement of a localization device placed by a radiologist.
Background

❖ There are several different options for localization devices, such as wire localization or non-wire localization with nonradioactive radar seed (SAVI Scout©) and magnetic seed (Magseed©).

❖ Each option offers advantages and disadvantages from the perspectives of the breast radiologist and breast surgeon.
Methods/Materials

At a large academic center, the breast radiologists and breast surgeons were surveyed regarding their personal preferences of the three localization devices (wire localization, SAVI Scout®, and Magseed®) all used at our institution in a relatively short period of time (over several years).
The survey was created with Google Forms and was emailed to all the breast radiologists and breast surgeons within the Breast Center. The survey results were submitted anonymously.
Results

Upon collecting the survey data, the most preferred device per the breast radiologist and breast surgeon was identified. The survey explores topics such as ease of placement for the breast radiologist and which device leads to better surgery outcomes for the breast surgeons.
Results—Breast Radiologist

Which device is technically easiest to place?
10 responses

Which device is technically the most difficult to place?
10 responses

Which device is the most accurate/had the least migration?
10 responses

Which device is the most time efficient to place?
10 responses
Results—Breast Radiologist

Which device do you think is preferred by patients?  
10 responses

- Magseed: 10 (100%)
- SAVI Scout: 5 (50%)
- Wire Localization: 0 (0%)

Which device offers the best patient experience? (Wire localization, SAVI Scout, Magseed)  
10 responses

- Magseed: 9 (90%)
- SAVI Scout: 4 (40%)
- Wire Localization: 0 (0%)
Results—Breast Surgeons

Which localization device is easiest to find in the OR?
7 responses

- Wire Localization: 3 (42.9%)
- Magseed: 4 (57.1%)
- SAVI Scout: 0 (0%)

Do Wire localizations interrupt surgery planning? (ie get in way of incision site, etc.)
7 responses

- Yes: 57.1%
- No: 42.9%

Do Wire localizations delay surgery (day of)?
7 responses

- Yes: 100%
Results—Breast Surgeons

Which localization device do you think is preferred by patients?
7 responses

- Wire Localization: 2 (28.6%)
- Magseed: 5 (71.4%)
- SAVI Scout: 0 (0%)

Which localization device leads to better surgery outcomes?
7 responses

- Wire Localization: 1 (14.3%)
- Magseed: 6 (85.7%)
- SAVI Scout: 0 (0%)

Which localization device has the least complication rate? (Wire localization, SAVI Scout, Magseed)
7 responses

- Wire Localization: 0 (0%)
- Magseed: 7 (100%)
- SAVI Scout: 2 (28.6%)
Conclusion

Which device is preferred by radiologists? (Wire localization, SAVI Scout, Magseed)
10 responses

- Wire Localization: 0 (0%)
- Magseed: 9 (90%)
- SAVI Scout: 3 (30%)

Which device is preferred by surgeons? (Wire localization, SAVI Scout, Magseed)
7 responses

- Wire Localization: 2 (28.6%)
- Magseed: 5 (71.4%)
- SAVI Scout: 0 (0%)
Conclusion

❖ Overall, similar themes were displayed in some responses of the breast radiologists and breast surgeons, respectively. However, other responses surprisingly showed differences between what surgeons and radiologists perceive and prefer.

❖ Breast radiologists think Magseed© or SAVI Scout© are preferred by patients because of flexible scheduling and more patient comfort (no wire external to the patient, patients can eat before the procedure and are less likely to pass out); whereas breast surgeons think Magseed© and wire localization are preferred by patients (wire localization can have the localization procedure and surgery on the same day).

❖ Magseed© and SAVI Scout© have better workflow efficiency for both radiologists and surgeons with decoupling of their schedules. Wire localization, placed the day of surgery, causes delays for both groups.

❖ Overall, Magseed© was preferred by breast radiologists due to ease of placement, least migration, and most time efficient. Some radiologists stated Magseed© and SAVI Scout© were equivalent in all areas.

❖ Although Magseed© was the most overall preferred device by breast surgeons; some surgeons prefer wire localization which they stated is better for deeper lesions, allows for bracketing, and produces better surgical outcomes.