Peer Review File

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Reviewer Comments:

1) *Authors are sharing their experience with a cohort of patients who had Magseed localisation. There are many publications with larger number of patients with similar outcomes and some of these studies are not referenced in the article (eg: Thekkinkattil et al 2019 , Dave et al 2020, Sing et al 2020) .*

Response:

As requested by the reviewers, we have completed our bibliography with recent publications.
Here is the list of the added publications.

1. Thekkinkattil D. et al. A prospective, single-arm, multicentre clinical evaluation of a new localisation technique using non-radioactive Magseeds for surgery of clinically occult breast lesions. Clinical Radiology 2019 Dec; 74 (12): 974e7-974e11. DOI: 10.1016/j.crad.2019.08.018
2. Powell M. et al. Magnetic Seed Localization (Magseed) for excision of impalpable breast lesions-The North Wales experience. Breast Journal 2021 Jun; 27(6): 529-536. DOI: 10.1111/tbj.14232.
3. Dave RV. et al. Wire- and magnetic-seed-guided localization of impalpable breast lesions: iBRA-NET localisation study. Breast Journal Surgery 2022 Feb 24; 109(3):274-282. DOI: 10.1093/bjs/znab443.
4. Morgan JL. et al. Results of shared learning of a new magnetic seed localisation device - A UK iBRA-NET breast cancer localisation study. European Journal of Surgical Oncology. 2022 Dec; 48(12):2408-2413. DOI: 10.1016/j.ejso.2022.07.014.

2) *Authors claim that all localisation is done under US guidance. How is this possible with microcalcifications?*

Response:

All the lesions with microcalcifications were biopsied to obtain the diagnosis. For several cases, at the end of the biopsy procedure, a biopsy clip was inserted as illustrated in figure 1. The presence of a post-biopsy haematoma also allowed us to identify the lesion. If we did not have a biopsy clip or ultrasound image (like hematoma) to visualise the lesion, we took an X-ray with the introducer needle in the breast before dropping the magseed. In case of incorrect positioning, we had the possibility to correct the trajectory. Moreover, our experience with localisation under stereotactic guidance has led us to prefer to use ultrasound localisation. Indeed, the displacement or migration of the clip during decompression was frequently observed.

3) What is the relevance of Figure 2 and Figure 4 in the context of this article?

Response:

This study was conduct by a team that has a history of working closely together. Each actor being important in the patient care process. For our team, the evaluation of the Magseed marker for identification of subclinical breast lesions was to be carried out by the radiologist, the surgeon and the anatomopathologist. It seemed important to us to illustrate the histology analysis of surgical specimen in order to respect the frame of the study.

4) Why did the authors use two Magseed markers for small lesions of < 10mm?

Response:

For 87% of the patients included in our study, the radiologist carried out the diagnosis, the placement of the Magseed and the radiography of the surgical specimen when necessary. When we used two Magseed markers for small lesions of < 10mm, the diagnosis was made by a radiologist from outside our team. In the medical report, the radiologist described a bi-focal lesion. As a precaution, the surgeon preferred to use two Magseed markers. In one case, we also performed a skin surface marking.

5) Localisation is difficult with Magseeds for deeper lesions. It is advisable not to give an impression to the reader that, magseeds can be safely used for lesions deep in the breast. There is no information whether authors used skin surface marking along with Magseeds for deeper lesions. Secondly what imaging method they used to measure the depth of the lesion.

Response:

We reviewed the medical file of the patient for whom we had described a lesion at a depth of 8 cm. The radiographic and ultrasound images were reviewed by two different radiologists in addition with our radiologist. There is an error in the description protocol that was made when the magseed was placed. It was described that the lesion was at a distance of 8 cm from the nipple. This measure was performed on mammograms images which is an error. Because as you clearly explained, mammograms give false information about the depth as this is performed with compression. The measure was performed on ultrasound and the distance between the skin and the center of the tumor lesion was 36 mm (Modification page 13 line 27). We have illustrated this case with to supplementary figure (1a et 1b). A skin surface marking was performed for this case. For your information, we reviewed all other cases to ensure that the dimensions were correct.

We have corrected the measure in the article. We also reviewed the surgeon's operating protocol and discuses the surgery with him again. He confirmed that for this patient the detection of the Magseed marker was difficult.