



AB011. SOH23ABS_025. Localisation using multiple magnetic seeds in unilateral breast surgery: a report of clinical and radiological outcomes in a tertiary breast cancer centre

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Background: Magnetic seeds (magseeds) are becoming increasingly used as a method of localising non-palpable breast lesions pre-operatively. The cost effectiveness and reduced scheduling conflicts in comparison with wire localization has led to increased popularity in recent years. While the outcomes of single magseed guided wide local excisions have been reported previously, there's a paucity of data on outcomes when using multiple magseeds in one breast. In this study, we assess the radiological, operative, and pathological outcomes of inserting multiple magseeds in the same breast.

Methods: A retrospective analysis of all magseed guided excisions performed at the MMUH symptomatic breast health and screening breast check departments between January 2020 and September 2022 were performed. Only those patients who had more than one magseed inserted were included. Bilateral magseed insertions were excluded. Primary outcome measures were successful excision of lesion(s) and retrieval of the magnetic seed. Secondary outcomes included time from magseed insertion to theatre, indication for >1 magseed, distance between the magseeds and re-excision rate.

Results: The total number of magseed insertions were 1,598 between January 2020 and September 2022 at MMUH to include 40 patients. The mean age was 58.6 years. US

guided insertion was more commonly employed than mammographic guided insertion and the mean duration between insertion and excision was 20.9 days. The mean distance between magseeds was 48.3 and 42.5 mm on medio-lateral and craniocaudal views respectively. Mean operative time was 56.65 minutes. Nine out of 40 cases used magseeds for bracketing a unifocal lesion while the remainder of cases magseeds were inserted in separate discrete lesions unilaterally. There were no reported difficulties with identifying both magseeds intra-operatively or in the specimen mammogram. 55% of the procedures were wide local excisions while 20% were diagnostic excisions. The mean operative time was 56.6 minutes with no peri-operative complications reported. 77.5% of the cases had 2 separate lesions while the rest had solitary lesions. The mean specimen size is 33.42 mm while the mean size of the final lesion is 15.49 mm. Invasive ductal carcinoma was the most commonly reported pathological outcome. The rate of positive margins was 20% and re-excision was 15%. One patient proceeded to have a completion mastectomy. All magseeds and clips were retrieved within the final specimen.

Conclusions: Multiple magseed localisation is a feasible, safe and effective method when utilized in bracketing a unifocal lesion or separate lesion excisions in unilateral breast surgery.

Keywords: Non-palpable breast lesions; great tumor localisation; magnetic seed localization; breast cancer screening; breast cancer

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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