Magseed for Localisation of Impalpable Breast Cancer is associated with High Patient Satisfaction and Lower Re-excision Rates

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Introduction

Problems with increasing demand and diminishing capacity associated with the National Radiology workforce issues, have necessitated change in the way services are traditionally delivered.

Localisation of impalpable breast cancers is traditionally performed using wire guidance. Magseed localisations were trialled instead of wire localisation procedures, as a solution to try and overcome the issues of reducing availability for our breast radiologists and consultant radiographer.

- Magseed is a radiation-free 5 × 1 mm paramagnetic steel seed which can be used to localise breast cancer, up to 30 days before surgery.
- Studies have demonstrated that Magseed is a safe and feasible way of accurately localising breast cancer.
- Non-wire location techniques are beneficial to patients, allowing image-guided placement before the day of surgery and resulting in improved department workflows.

Methods

A trial of 10 patients with impalpable breast cancer was carried out at The Shrewsbury & Telford Hospital NHS Trust.

All patients were in the care of our Lead Consultant Breast Surgeon, who had been trained for using the Magseed probe equipment.

All cases had a Magseed inserted for pre-surgery localisation before the day of surgery.

Data recorded include radiology experience, time taken for cancer localisation, patient satisfaction and re-excision rates.

This data was compared to standard breast conserving surgery using traditional wire guidance for localisation.

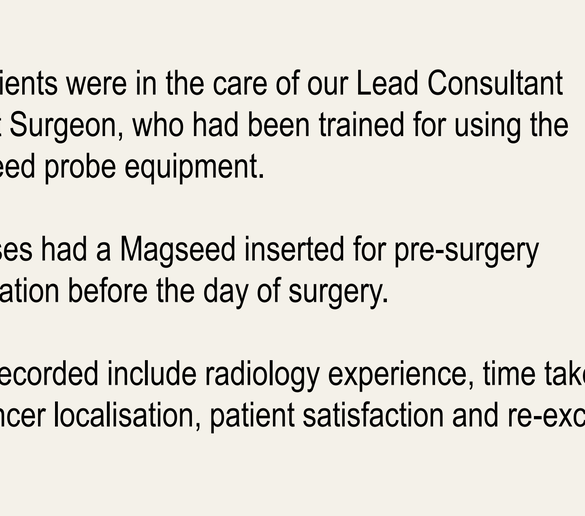


Figure 1 Magseed for magnetic localisation

Figure 2 Size comparison of Magseed with a coin and core biopsy needle

Results

- Radiology experience comparing wire localisation procedures to Magseed, resulted in a average reduction of procedure from 10 minutes to 90 seconds.
- Greater flexibility for radiology provision was recorded.
- A reduction in pre-operative time was recorded.
- All Magseed's were easily detected by the probe in theatre.

Figure 3 Diagrammatic Image of probe detecting Magseed sited within a cancer

- Average surgery time comparing wire localisation to Magseed cancer localisation, resulted in an reduction of surgical time from 15 minutes to 9 minutes.

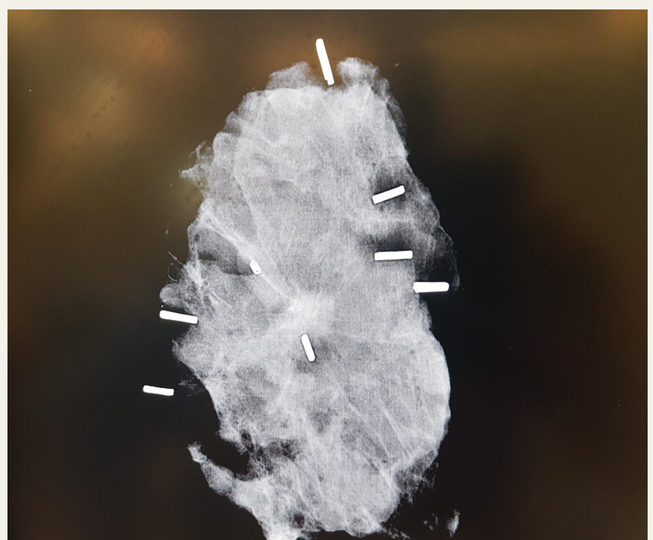


Figure 4 Faxitron image of breast cancer specimen localised by Magseed

Re-excision rate for magseed localisation was 10%, which was comparable to standard wire localisation re-excision rate of 14%.

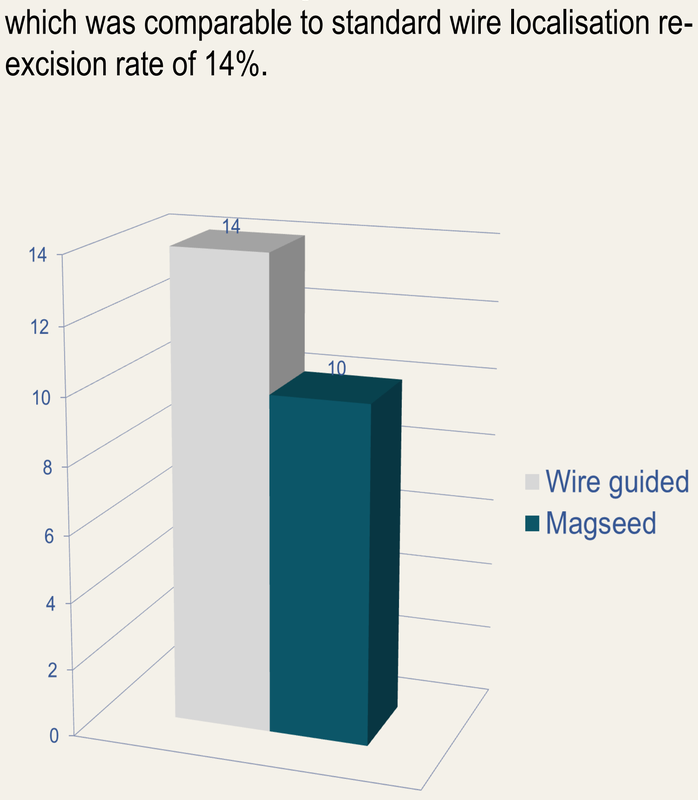
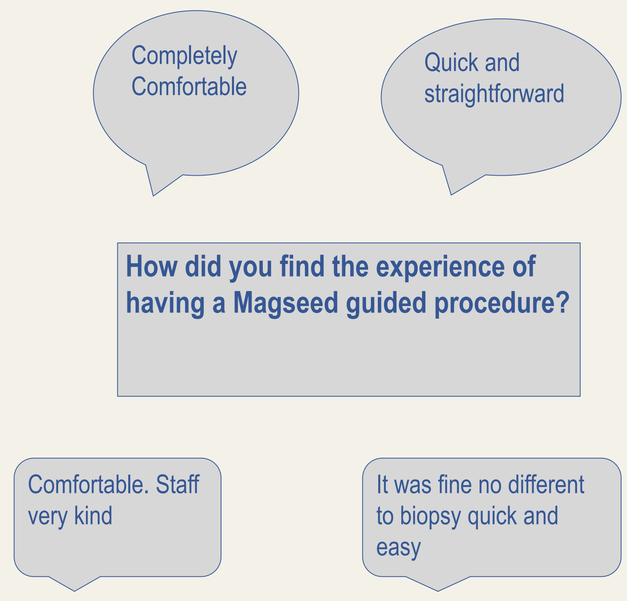


Figure 5 Re-excision rate following breast conserving surgery

Results

100% patients said the quality of care was very good, and 100% would recommend a Magseed procedure to friend or relative if needed.



Conclusion

Magseed excision of non-palpable breast cancer is safe and feasible, with lower re-excision rates.

Magseed procedure reported to have a high patient satisfaction.

Magseed also allows significant service improvement with:

- a reduction in both radiological and surgical localisation timing
- improved pre-operative process and
- flexibility in radiological provision.

Magseed localisation for breast cancer surgery promotes a patient-centric approach with no radioactivity.

Magseed is easily tolerated by the patient and thereby improves the patient experience.

Magseed is a solution to radiology capacity issues.

References

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Sentimag Impalpable Breast Localisation has never been easier Sentimag Magseed Information Leaflet

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