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Introduction: With the increase in detection of non-palpable breast lesions through screening, wire-guided localisation (WGL) has long been the favoured method for preoperative localisation, despite several limitations. New methods have been developed, including several non-radioactive, wireless options. We assess the effectiveness of Savi Scout localisation (SSL) through this pooled analysis and systematic review.

Methods: A number of databases were searched for retrospective and prospective cohort studies reporting data on localisation and retrieval of SSL reflectors within breast lesions, as well as re-excision rate. We included our own data from 20 patients (22 reflectors) at our institution.

Results: A total of 842 reflectors were inserted across eleven publications and our own data. Pooled analysis revealed an overall successful deployment rate of 99.64% and a successful retrieval rate of 99.64% using SSL. A statistically significant difference in re-excision rate was found across four studies comparing SSL and WGL (12.9% and 21.1% respectively, Chi-squared with Yates' correction=7.4639, $p<0.01$).

Conclusions: The SSL system is a safe and effective alternative to WGL. Our findings show Savi Scout to be a highly successful localisation technique, which is associated with lower re-excision rates than WGL. This is achieved whilst overcoming many of the recognised limitations of the latter, including minimal device migration and more optimal skin incisions. The reflectors also result in minimal MRI signal void artefacts when compared to other non-radioactive wireless localisation options. SSL facilitates flexible scheduling by decoupling radiology and surgery interventions and may reduce the need for re-excision procedures for positive surgical margins.

P069. THE ADDED BENEFITS OF RECENT ADVANCES IN BREAST LOCALIZATION TECHNIQUES, OUR EXPERIENCE

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Background: Preoperative localization of non-palpable breast lesions using image-guided wire placement and radioguided occult lesion localization (ROLL) has been the most popular localization techniques. Rapid expansion on the number of localization techniques takes place in the recent years, aiming for wire free, radioisotope independent methods that can precisely target the lesion and reduce the reexcision rates. Some of licensed methods includes Magnetic technique using Magseed, Radio-frequency detection using the Localizer (RFID) tag and Infrared detection with Savi Scout.

Method: Retrospective, cohort study in tertiary teaching hospital evaluating the new introduction of RFID tag and Savi Scout as an alternative methods. In term of reexcision rate and avoiding the disadvantages with previous techniques.

Result: Total 27 cases were evaluated, 20 cases using Savi Scout, 7 cases of RFID Tag. Only 3 cases required reexcision of close margins. Reexcision rate 11% (compared to 21% average reexcision rate on BASO) Surgeon was able to precisely target the lesion, no migration of seed recorded. no significant change in operative time. These technologies help in workflow efficiency as no delay in the morning of surgery, also eliminate bothersome of protruding wires, risk of dislodging. Surgeons, radiologist and patient were satisfied with the technique.

Conclusion: The new emerging localization techniques were superior to Wire and ROLL in our institution, not only to avoid disadvantages of traditional methods but also decreasing the reexcision rate, which lead us to consider adopting these techniques for the future. Business case submitted and accepted by hospital board.

P070. INFLUENCE OF THE COVID 19 PANDEMIC ON OUR DAY-CASE MASTECTOMY PATHWAY

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National guidance recommends that at least 50% of mastectomies should be performed as day-case procedures. COVID-19 has significantly altered

clinical practice, encouraging more day-case operations. The aim of this audit is to evaluate the rate of day-case mastectomies, and the safety of a newly established day-case mastectomy pathway in our centre, a change accelerated by COVID-19. A retrospective audit was completed on all mastectomies carried out at a single centre between January and October 2020. Those with immediate breast reconstructions were excluded. Electronic patient records were reviewed to include patient demographics and follow up data. Basic statistical analysis was performed. Between January and October 2020, 96 patients underwent mastectomy (28 with axillary clearance and 58 with sentinel node biopsy). 56% of procedures were day-case. Between January and March 21.7% were day-case, compared to 67% between March and October, during COVID-19 ($p<0.05$). Wound drain was not inserted in 16 day-case mastectomies. Compared to patients who stayed overnight, patients who underwent day-case mastectomy were on average significantly younger and had significantly lower ASA scores ($p<0.05$). Following discharge, there were 3 out of hours episodes after day-case mastectomy and 10 after inpatient operations. 11 of these were to the surgical ward, all due to issues related to the wound drains. There were no post-operative emergency admissions in either cohort. COVID 19 played a huge role in rapid implementation of day-case mastectomy pathway in our unit. Avoidance of wound drains may avoid out of hours hospital visits and improve patient experience.

P071. RADIO-FREQUENCY TAG LOCALISATION FOR IMPALPABLE BREAST CANCERS: SINGLE CENTRE EXPERIENCE

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Aim: Radiofrequency (RF) tag localisation is a new localisation technique used for impalpable breast lesions. We describe our experience in Aberdeen with the first 65 cases in our unit.

Materials & Methods: 65 patients who had RF tags preoperatively inserted between 07.02.2020 - 18.09.2020 were identified. Data on RF tag insertion, failure and re-excision rate were retrospectively collected.

Results: 67 tags were inserted in 65 patients. All breast lesions were targeted by only one tag except 2 patients which required 2 RF tags. Tags were inserted ranging from 0-86 days before the surgery (average of 12 days). Tags were inserted under ultrasound guidance ($n=63$) or stereotactically ($n=4$). Only 2 tags were deployed unsatisfactorily with more than 10 mm distance to marker coil requiring subsequent wire localisation. 30 patients (46%) were post neoadjuvant treatment (chemotherapy or endocrine). 21 patients (32%) required further surgeries with 7 undergoing more than one procedure and 8 patients with completion mastectomies. Two RF tags fell out of the breast tissue prematurely due to anterior placement of tag to lesion. However, both of these lesions were fully excised at the first attempt. No surgical complications were recorded in relation to tags.

Conclusion: RF tag localisation is a feasible alternative to wire localisation providing flexibility for theatre planning. However, the higher re-excision rate in this cohort is likely to be multifactorial. This might be because of a learning curve, though a high percentage of these patients were on temporary neoadjuvant treatments and were operated on offsite during Covid.

P072. ULTRASOUND GUIDED INFILTRATION OF DILUTIONAL LOCAL ANAESTHESIA IN BREAST CANCER SURGERY

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Introduction: Breast Cancer Surgery under local anaesthesia (LA) is limited by the insufficiency of anaesthetic volume and uneven distribution of anaesthetic. A technique is described that obviates the two problems by employing Dilutional Local Anaesthesia (DLA) and the use of ultrasound to ensure even distribution of the anaesthetic.

Method: 1% Xylocaine (1% lidocaine with 1:200,000adrenaline) was used. 40mls of LA was added to a 500ml bag of normal saline to make up 540ml solution containing 400mg of lidocaine and 200microgram of adrenaline. 1ml of DLA was added to 2ml of blue dye and injected in subareolar space