Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
**Results:** Of the 2108 women undergoing IBBR, 522 (25%) experienced infection and 372 (18%) required reoperation/readmission for complications at 3 months. Infection was associated with increasing operation duration (odd ratio (OR) 1.003, 95% confidence interval [CI] 1.001-1.005/minute), implant size=50cc (OR 1.77, 95% CI 1.25-2.5) and Wise-pattern incisions (OR 1.57, 95%CI 1.40-2.50) in the univariable analysis, but no associations were seen when all factors were combined in a multivariable model. Readmission/reoperation was associated with increasing operation duration (OR 1.003,95%CI 1.001-1.005/min) and reduced in nipple-sacrificing (vs nipple-sparing/wise-pattern) procedures (OR 0.75, 95% CI 0.56-0.99). In the multivariable model, however, only extended antibiotic use (>single dose, OR 0.49, 95%CI 0.32-0.75) and operation duration (OR 1.004, 95%CI 1.001-1.007/min) remained associated with readmission/reoperation.

**Conclusions:** Readmission/reoperation rates may be reduced by decreasing operative time and giving extended perioperative antibiotics. This analysis is exploratory and further work is now needed to confirm these findings.

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**P061. SAVI SCOUT LOCALIZATION OF BREAST AND AXILLARY LESIONS, OUTCOME OF SINGLE INSTITUTE EXPERIENCE**

Raja Eid, Geraldine Mitchell, Ian Whitehead, Matthew Rowland, Julia Henderson, Royal Liverpool Hospital, Liverpool, United Kingdom

**Background:** Breast cancer is common. Screening programs aid early detection. Several methods exist to aid surgeons precisely identify impalpable lesions. The aim of this study was to evaluate the feasibility of SAVI SCOUT localization method using RADAR Nitinol reflector for localization of impalpable breast lesions and aid targeted axillary dissection.

**Methods:** Prospective cohort study in a single tertiary teaching hospital. The evaluation consisted mainly of deployment, ability of the surgeon to accurately identify and excise the lesion. Workflow efficiency in terms of timing of reflector placement, operative time, re-operation rates. In addition to patient acceptance.

**Results:** SAVI SCOUT reflectors (n=38) were deployed to localize 33 Occult breast lesions and two axillary lymph nodes in 34 patients. To date 20 Patients had SAVI SCOUT guided excision of breast lesion, one Patient had axillary reflector placement to aid targeted axillary dissection. The majority of surgeons were placed a week before surgery, no localization delay on the morning of surgery was recorded. Recently 4 patients have had the localizer placed at time of breast biopsy. Radiologists did not experience any difficulty with deployment. No migration of the reflector was seen. Surgeons identified the reflector in the excised specimen in all cases. No increase in operative time was noted. Three patients require reoperation for positive DCIS surgical margins (1 involved, 2 < 1mm) Radiologists, surgeons and patients were satisfied with the technique.

**Conclusion:** SAVI SCOUT is an accurate, reliable, acceptable localization technique that improves radiology work flow, potentially reducing hospital visits, promoting theatre efficiency and enhancing outcomes.

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**P062. THE USE OF RADIOFREQUENCY TAG LOCALIZATION OF IMPALPABLE BREAST Cancers DURING THE COVID-19 PANDEMIC**

Jonathan Strickland, Beatrix Elsberger, Gerald Lip, Mairi Fuller, Yazan Masannat. Aberdeen Royal Infirmery, Aberdeen, United Kingdom

**Background:** Radiofrequency (RF) Tags are new devices used to localize breast lesions for surgery. During the Covid-19 Pandemic these offered the flexibility to be inserted days or weeks before surgery, making the logistics of planning theatres lists much easier especially when most of our breast cancer surgery was moved off site.

**Materials and Methods:** In the 7 weeks following the lockdown in the UK, we reviewed all the planned admissions for breast surgery looking at the types of surgery offered, type of localization used and assessed who wouldn’t have had their surgery if RF tags were not available locally.

**Results:** Out of 85 planned admission, 83 had surgery, 11 were for resection of margins and 72 for their first breast surgery excision (mastectomy or breast conservation). Out of the 54 that had BCS, 40 needed localization, out of these 27 had RF tags. Looking at theatre order list and the site that surgery was performed, 20 out of the 27, wouldn’t have had their surgery if RF tags were not available, that is 50% of patients needing localization.

**Conclusion:** RF Tags are new devices used for breast lesion localization, like other similar new devices, they offer the flexibility of being inserted days or weeks before surgery making the logistics of theatre planning easier, offering a much-needed flexibility especially during the Covid19 Pandemic. This was approved as an Audit by NHS Grampian Clinical Governance Department.

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**P063. PREOPERATIVE LOCALISATION TECHNIQUES BEFORE WIDE EXCISION - DOWN TO THE WIRE**

Jarin Noronha, Mirza Baig, Lee Martin. Aintree University Hospital, Liverpool, United Kingdom

**Introduction:** Excision is performed to remove target tissue adequately, avoid unnecessary tissue resection, and provide good, safe cosmosis. We sought to compare wire localisation (WL) and non-wire localisation (NWL) (Hologic Radio-frequency identification and Savi scout radar-guided) excision procedures employed in premalignant and malignant surgical treatment.

**Methods:** This retrospective audit was performed between January 2019 & November 2020 at a Liverpool University Hospital in excisions for preoperative histologies of DCIS, LCIS or invasive breast cancer. Histology, cavity shaves performed, and re-excision rates were evaluated.

**Results:** The cohort consisted of 59 patients with a median age of 61 years (range 35-83). Screening detected patients formed half the group (50.8%) & neoadjuvant therapy was administered to 11.8% patients. The median weight of specimen excised was 33g (5.6-167g). 52.5% specimens had invasive carcinoma while 81% showed DCIS/LCIS. 72.8% and 27.1% patients had a WL and NWL excision, respectively. Six WL patients (14%) required an additional wire for accurate localisation. While all WL had to be performed on the same day as wire insertion, NWL insertion had a median 3 day gap with excision. At primary surgery, 55.8% WL patients had a cavity shave performed while 37.5% NWL patients had a cavity shave. 37.2% WL patients had a close/involved margin requiring re-excision while 25% NWL patients had a close/involved margin.

**Conclusion:** NWL devices appear to offer improved surgical precision. Larger studies could confirm this to be a superior localisation method in sinister breast lesions.

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**P064. MANAGEMENT OF BREAST CANCER DURING THE COVID PANDEMIC: A REPORT FROM A UNIVERSITY TEACHING HOSPITAL**

Arjun Kattakayam, Jarin Noronha, Lee Martin. Aintree University Hospital, Liverpool, United Kingdom

**Introduction:** Covid-19 is a global pandemic affecting healthcare delivery with guidelines issued to rationalise safe breast cancer care. The primary aim of this study is to audit the management of newly diagnosed breast cancer during this period.

**Methods:** This retrospective audit was performed at a Liverpool University Hospital in patients treated for non-metastatic breast cancer between 16/3/20 & 8/5/20. TNM status, histology, surgical management and adjuvant treatment plans were collated.

**Results:** Our cohort consisted of 74 patients with a median age of 62 years (range 31-81). No changes in our imaging/diagnostic pathway were noted. While 6.7% of patients had only DCIS, the majority (93.3%) had invasive cancer. The distribution of T1, T2 and T3 disease were 38.5%, 47.1% and 14.2%, respectively. 83.8% were node-negative. 67.6% of patients had an alteration in their treatment plan. Pre-operative, 20 patients received 'bridging' hormone therapy before surgery and three had neoadjuvant therapy omitted. Surgically, 17.5% had a delay in surgery (>31 days following diagnosis), 6.7% were not offered immediate reconstruction following mastectomy, 4% did not receive a re-excision for close margins and 1.3% did not have a completion axillary clearance following sentinel node macro-metastasis. Post-operative, 6.7% of patients deferred...
radiotherapy and 32.4% had ‘altered’ radiotherapy with 5 fractions.

**Conclusion:** Patients treated during this pandemic had changes in their surgical and adjuvant treatment plans. Long Term follow-up will be necessary to assess changes recurrence compared to standard treatments.

**P065. PERIAREOLAR INCISION IN NIPPLE SPARING MASTECTOMY FOLLOWED BY IMMEDIATE IMPLANT BASED RECONSTRUCTION IS ASSOCIATED WITH A HIGHER RISK OF Complications WHEN COMPARED TO INFRA MAMMARY FOLD (IMF) INCISION**

Rakhee Chauhan, Georgios Boutsikos, Buket Ertansel, Siya Lodhia, Shobha Rajagopal, Thalia Picton-Scott, John Hirniak, Nadine Betamebou, Dibyesh Banerjee, Anup Sharma, Sarah Tang. St George’s University Hospitals NHS Foundation Trust, London, United Kingdom

**Introduction:** Extended periareolar or inframammary incisions can both provide good surgical exposure in nipple sparing mastectomy and immediate implant reconstruction. This studies compares the rate of complications between these 2 groups.

**Methods:** All implant based immediate reconstructions performed in a single institution (08/1/2015 and 22/11/2019) were reviewed. Those who underwent nipple sparing mastectomy either through periareolar incisions or inframammary fold incisions were included. The following data was collected: type of incision, mastectomy weight, implant volume, patient age, BMI, position of implant (prepectoral vs subpectoral), neo-adjuvant chemotherapy, history of previous radiotherapy, smoking status and post-operative complications within 30 days. Statistical analysis was performed using t-test for continuous and chi-square for categorical variables (p<0.05 significant).

**Results:** 118 cases were include (93 cases IMF and 25 periareolar). The complication rate (wound healing, nipple necrosis and implant loss) was significantly higher in the periareolar group (p=0.0021). There were no differences in mean age, BMI, smoking status and the proportion who had neo-adjuvant chemotherapy. There was no difference in mastectomy weights but the mean implant volume was higher in the periareolar group (421cc versus 351cc, p=0.0027). The periareolar group was more likely to have a previous history of chest wall radiotherapy (p=0.0033). When all patients with a history of previous radiotherapy were excluded from the analysis, periareolar incision was still associated with a higher risk of complications (p=0.004).

**Conclusion:** Periareolar incision is associated with a higher risk of post-operative complications.

**P066. LEEDS TEACHING HOSPITALS TRUST’S EXPERIENCE AS A TERTIARY CENTRE WITH BREAST IMPLANT ASSOCIATED ANAPLASTIC LARGE CELL LYMPHOMA (BIA-ALCL)**

Elaine Borg, Philip Turton. St James University Hospital, Leeds, United Kingdom

**Introduction:** Increased awareness of BIA-ALCL has led to increased investigation of implant associated breast swelling.

**Method:** All patients diagnosed with BIA-ALCL who were referred to LTHT were included in this service provision assessment.

**Results:** There are 7 cases of BIA-ALCL managed at LTHT. Age range 27–62. 7 had their implant inserted for cosmesis whilst 1 was post-cancer surgery. 5 implants were macrotextured and 2 microtextured. 6 patients (85.7%) presented with breast swelling and 1 (14.2%) presented with a breast mass. 3 had a history of previous aspiration ranging 1–12 months. 1 of these had aspiration done 3 times with negative cytology. Investigations with imaging, cytology, microbiology, HMDS and flow cytometry were done in all cases. All patients were operated (5 bilateral en bloc resection, 1 unilateral en bloc resection and 1 total capsulectomy). 1 patient had immediate implant-based reconstruction. 2 had excision of solitary lymph nodes and 1 had axillary sampling. 5 patients were diagnosed with BIA-ALCL pre-op and 2 patients were diagnosed post-op. 3 were Stage I, 2 Stage II, 1 Stage III and 1 Stage IIB. 2 received systemic therapy and 1 received radiotherapy. 1 developed further complication in form of resistant seroma for which she required 2 further aspirations.

**Conclusion:** Management of BIA-ALCL at LTHT is in accordance with current guidelines. To decrease false-negative diagnosis, the maximum seroma volume attainable (minimum 50cc) should be sent for cytology. The recently published UK guidelines on BIA-ALCL should be followed when managing any patient with a delayed peri-implant seroma.

**P067. IMMEDIATE BREAST RECONSTRUCTION AND COMPLICATION RATES IN OLDER BREAST CANCER PATIENTS UNDERGOING MASTECTOMY IN A SINGLE TERTIARY CENTRE**

Primeera Wignarajah, Samir Yep Manzano, Andrew Hui, Dorin Dumitra, Charles Malata, John Benson. 1. Addenbrookes Hospital, Cambridge, United Kingdom; 2. Cambridge University, Cambridge, United Kingdom

**Introduction:** Mastectomy patients should be offered immediate breast reconstruction (IBR) if suitable according to NICE guidance. Despite psychological benefits, IBR adds to surgical complexity and potential complications in older reconstructions patients with additional morbidities. This study aims to determine whether rates of complications amongst older patients (≥65 years) are acceptable with judicious selection. The IBRA 2 study reported a post-operative complication rate of 36.6%.

**Methods:** A retrospective analysis was performed of consecutive patients undergoing mastectomy +/- IBR between January 2015 and February 2020. Patient details were extracted from an electronic database and anonymized data analysed with PRISM software. Primary outcomes were rates of IBR and complications (irrespective of reconstructive status). Major complications mandated return to theatre or hospital readmission whilst minor complications were defined as amenable to outpatient monitoring (seroma formation and wound infections). Approved audit ID/PRN 2652. Results: A total of 545 mastectomy patients with a median age of 59.3 years (25-94) and average BMI of 27.5 (15.2 – 53.0) were analysed. Almost half (45.5%) underwent IBR amongst whom 55.8% received post-mastectomy radiotherapy and 47% had at least one complication (major or minor). Seroma formation requiring drainage was the most common complication overall (36.5%) See (Table 1).

**Conclusion:** The uptake of IBR is significantly lower amongst women aged ≥65 years. Nonetheless, rates of complications are comparable between this selected group of older patients and younger women undergoing IBR.

**P068. SAVI SCOUT® RADAR LOCALISATION OF NON-PALPABLE BREAST LESIONS: SYSTEMATIC REVIEW AND POOLED ANALYSIS OF 842 CASES**

Iham Kasem, Kefah Mokbel. The London Breast Institute, The Princess Grace Hospital, London, United Kingdom

**Introduction:** Increased awareness of BIA-ALCL has led to increased investigation of implant associated breast swelling.

**Method:** All patients diagnosed with BIA-ALCL who were referred to LTHT were included in this service provision assessment.

**Results:** There are 7 cases of BIA-ALCL managed at LTHT. Age range 27–62. 7 had their implant inserted for cosmesis whilst 1 was post-cancer surgery. 5 implants were macrotextured and 2 microtextured. 6 patients (85.7%) presented with breast swelling and 1 (14.2%) presented with a breast mass. 3 had a history of previous aspiration ranging 1–12 months. 1 of these had aspiration done 3 times with negative cytology. Investigations with imaging, cytology, microbiology, HMDS and flow cytometry were done in all cases. All patients were operated (5 bilateral en bloc resection, 1 unilateral en bloc resection and 1 total capsulectomy). 1 patient had immediate implant-based reconstruction. 2 had excision of solitary lymph nodes and 1 had axillary sampling. 5 patients were diagnosed with BIA-ALCL pre-op and 2 patients were diagnosed post-op. 3 were Stage I, 2 Stage II, 1 Stage III and 1 Stage IIB. 2 received systemic therapy and 1 received radiotherapy. 1 developed further complication in form of resistant seroma for which she required 2 further aspirations.

**Conclusion:** Management of BIA-ALCL at LTHT is in accordance with current guidelines. To decrease false-negative diagnosis, the maximum seroma volume attainable (minimum 50cc) should be sent for cytology. The recently published UK guidelines on BIA-ALCL should be followed when managing any patient with a delayed peri-implant seroma.