

23. LONG-TERM OUTCOMES OF BILATERAL THERAPEUTIC MAMMOPLASTY - CLINICAL CHARACTERISTICS AND QUALITY OF LIFE

Ewa Majdak Paredes¹, Isabel Teo¹, Mark Schaverien², Neil Johns¹, Joanna Wolska¹, Cameron Raine¹, Michael Dixon¹. ¹Edinburgh Breast Unit, Edinburgh, United Kingdom; ²MD Anderson Cancer Center, Houston, USA

Introduction: Therapeutic mastoplasty is the use of breast reduction techniques and radiotherapy to treat breast cancer. We have been performing therapeutic mastoplasties and simultaneous contralateral reductions at the Edinburgh Breast Unit (EBU), and would like to share our indications, approach and technical refinements.

Methods: A database of all breast cancer patients at EBU from 2007–2017 was analysed. Case note analysis was performed for all patients who underwent therapeutic mastoplasty and simultaneous contralateral reductions. BREAST-Q has been used to assess quality of life.

Results: 104 patients underwent therapeutic mastoplasty and simultaneous contralateral reductions. All were discussed at the breast multidisciplinary team meeting, and deemed to have large breasts suitable for this technique. Oncological incomplete excision rate was 3% (n=3); local recurrence rate at 5 years was 3% (n=3) and 8% (n=8) developed cancer metastasis. On the cancer side, a variety of pedicles were used to reconstruct the volume deficit following cancer resection (a single pedicle [superior/superomedial/inferior/lateral], extended pedicle or a combination of a single and secondary pedicle). A simple algorithm will be presented. On the non-cancer side, all patients received wise pattern superomedial pedicle reductions (regardless of the pedicle used on the cancer side). 3% (n=3) subsequently requested revision surgery (2 scar revisions, 1 lipomodelling) to improve cosmesis.

Conclusion: Therapeutic mastoplasty and simultaneous contralateral reduction is a suitable surgical option in select patients, with good oncological safety profile and favourable cosmesis. We hereby share our 10-year experience including PROMS.

24. WHAT'S BEST? TEAM-APPROACH BREAST CARE NURSING VERSUS 1-1 BREAST CARE NURSING – YOU DECIDE!

Amanda Snippe, Clare Brearley, Imelda Hughes, Rachel Pastore, Victoria Riusus. Pennine Acute Hospitals NHS Trust, Manchester, United Kingdom

National guidelines state that all breast cancer patients must have a keyworker but does not stipulate how this should be carried out. The theory behind the keyworker strategy is that communication will be improved and patients can build a relationship with that particular member of staff but what happens when this member of staff is away?

For this reason our Trust has implemented a team approach to breast care nursing but this approach has been challenged when we are assessed for quality assurance in relation to a perceived lack of continuity and a possible negative affect on patient care.

We therefore decided to ask patients to complete a patient questionnaire asking them about their opinion on whether they would prefer to have one keyworker or a team of keyworkers with the intention of reviewing practice if patients indicated it was necessary. Interestingly the majority of patients stated that they had no preference.

The breast care nursing team have robust systems in place to ensure excellent levels of communication and documentation and the team approach has enabled developments which have greatly improved patient care. It has also allowed patients to speak to a breast clinical nurse specialist at the time that they have the concern or question which in turn decreases their anxiety and actually helps build a rapport. The benefits and disadvantages for both methods of care will be discussed with the intention of commencing a thought-provoking debate which will lead to changes in practice.

25. THIS ABSTRACT HAS BEEN WITHDRAWN

26. SURGICAL MANAGEMENT OF DCIS DURING THE SLOANE PROJECT

Cliona C. Kirwan^{1,2}, Sheila Stallard³, Senthurun Mylvaganam⁴, Bridget Hilton⁵, Karen Clements⁵, Shan Cheung⁵, Alistair Thompson^{6,7}. ¹University of Manchester, Manchester, United Kingdom;

²Manchester University Foundation Trust, Manchester, United Kingdom; ³Gartnavel General Hospital, Glasgow, United Kingdom; ⁴Royal Wolverhampton Hospitals NHS Trust, Wolverhampton, United Kingdom; ⁵Public Health England, Birmingham, United Kingdom; ⁶University of Dundee, Dundee, United Kingdom; ⁷Baylor College of Medicine, Houston, USA

Introduction: The Sloane Project is a prospective cohort study, including 50% of UK screen detected DCIS (2003–2012).

Methods: Trends in type of breast surgery were compared with DCIS radiology, pathology and breast size.

Results: Of 10071 patients with complete data undergoing surgical excision, 2194 (21.8%) underwent mastectomy, of whom 1499 (68.3%) had simple mastectomy. Among 7877 undergoing breast conserving surgery (BCS), 83 (1%) had therapeutic mastoplasty (TM). The 4:1 BCS:mastectomy ratio remained consistent over time.

Over the decade, DCIS excised at BCS was 19.3mm (mean), at TM was 32.4mm and at mastectomy was 39.8mm. The rates of simple mastectomy decreased from 76.5% to 64.7% while there was a small increase in TMS (from 0.2% (2 patients) [2003–4] to 2% (18 patients) [2011–12]).

There was a statistically (but small [8%] clinically) significant difference in mean breast volume for BCS compared to mastectomy patients (1068ml vs 988ml respectively, $p < 0.0001$). Mean breast volume (determined from mammography measurements) increased by 16% over the 9 years (from 1005ml to 1166ml). Size of DCIS excised increased year on year from mean 21.4mm to 24.1mm. Despite increasing breast volume, extent of the DCIS excised by WLE remained constant over time while size of DCIS excised at mastectomy increased from 36.5mm to 45.6mm.

Conclusion: Breast size and pathological size of screen detected DCIS both increased between 2003 and 2012, but BCS rates remained constant. Interestingly breast size had no apparent influence on type of surgery, although the decrease in simple mastectomy suggests breast reconstruction increased over time.

27. MULTIFOCALITY IN BRCA-ASSOCIATED BREAST CANCER: A CROSS-SECTIONAL ANALYSIS

Alan McCrorie¹, Susannah Ashfield², Colin McIlmunn¹, Clinton Boyd³, Kieran Savage¹, Patrick Morrison⁴, Stuart McIntosh¹. ¹Centre for Cancer Research & Cell Biology, Queen's University Belfast, Belfast, United Kingdom; ²University of Cambridge School of Clinical Medicine, Cambridge, United Kingdom; ³Institute of Pathology, Belfast Health & Social Care Trust, Belfast, United Kingdom; ⁴Northern Ireland Regional Genetics Centre, Belfast Health & Social Care Trust, Belfast, United Kingdom

Introduction: Multifocal breast cancer (BC) is reported in around 10% of BCs, although previous studies have not specifically addressed its incidence in BRCA mutation carriers. We hypothesised that multifocal disease may be more common in these patients, due to genomic instability resulting in widespread field changes within breast tissue. This study set out to investigate prevalence of multifocality in BRCA-association BC in Northern Ireland.

Methods: Clinical and pathological data was retrospectively collected from 211 women with BRCA-associated BC diagnosed over a 20 year period, following approval by the Trust Audit Department. Differences in tumour characteristics were explored using Chi-squared and t-tests; odd ratios for multifocality were calculated using logistic regression analysis.

Results: 43% of women had BRCA1 and 57% BRCA2 mutations. Mean age at diagnosis was 45 years. Overall prevalence of multifocality was 25% but prevalence amongst BRCA2 carriers was over double that of BRCA1 carriers.

		BRCA status	
		BRCA1 N (%)	BRCA2 N (%)
Tumour focality	Multifocal	12 (13.3)	40 (33.1)
	Unifocal	78 (86.7)	81 (66.9)

Women affected by multifocal tumours were younger, and had proportionately higher ER positivity and lower triple negativity. Adjusted odds of a BRCA2-associated BC being multifocal were four-fold higher than BRCA1-associated tumours (OR: 3.71, CI: 1.77–7.78, P=0.001).

Conclusions: Results suggest higher than anticipated prevalence of multifocality amongst BRCA carriers diagnosed with BC, and this appears driven by a high incidence among BRCA2 mutation carriers, with ER positive disease. Further validation and prospective studies are necessary to accurately assess the risk of multifocality in BRCA-associated BC.

28. THE BREAST ANGIOSARCOMA SURVEILLANCE STUDY (BRASS)

Jenny Banks¹, Shelley Potter², Charlotte Ives³, Matt Gardiner⁴, Abeer Shaaban⁵, Adrian Harnett⁶, Michael Hallissey⁷, Jenny Sherriff⁶, Kieran Horgan⁸, Douglas Ferguson⁹, Rachel Tillett³, David Izardi⁴, Hazim Sadideen⁴, Craig Gerrand⁹, Abhilash Jain¹⁰, Lynda Wyld¹¹, Chris Holcombe¹². ¹Torbay and South Devon NHS Foundation Trust, Torquay, United Kingdom; ²Bristol Centre for Surgical Research, Bristol, United Kingdom; ³Royal Devon and Exeter NHS Foundation Trust, Exeter, United Kingdom; ⁴Reconstructive Surgical Trials Network, London, United Kingdom; ⁵University Hospitals Birmingham, Birmingham, United Kingdom; ⁶Norfolk and Norwich University Hospital NHS Foundation Trust, Norwich, United Kingdom; ⁷Queen Elizabeth Hospital, Birmingham, United Kingdom; ⁸Leeds Teaching Hospitals, Leeds, United Kingdom; ⁹Royal National Orthopaedic Hospital NHS Trust, Middlesex, United Kingdom; ¹⁰Imperial College Healthcare NHS Trust, London, United Kingdom; ¹¹University of Sheffield, Sheffield, United Kingdom; ¹²Royal Liverpool and Broadgreen University Hospitals NHS Trust, Liverpool, United Kingdom

Introduction: Breast angiosarcomas (AS) are rare, poorly understood tumours which may develop spontaneously (primary AS, (PAS)) or secondary to lymphoedema or radiotherapy following breast cancer (secondary AS, (SAS)). Data on optimal management and outcomes is scarce. This retrospective cohort study seeks to improve understanding and help inform a future prospective study.

Methods: UK centres treating AS were invited to participate through Trainee Research Collaborative Networks. Patients with a tissue diagnosis of primary or secondary AS of the breast/chest wall between 2000 - 2015 were eligible for inclusion. Data collection is ongoing (appropriate approvals obtained), and will complete March 2019.

Results: To date, 73 patients have been entered from 11 centres (100% female, average age at diagnosis of AS; 63 years (range 29–83)). Most cases (86%) are SAS, average lag time from primary breast cancer to development of SAS was 7.8 years. Median follow up period is 6.9 years with all-cause mortality at 49%.

All cases were discussed at an MDT; 60% of patients were documented to have been discussed at a Sarcoma MDT, and 53% at a Breast MDT.

Fifty-eight patients (79%) were considered by MDT to be resectable at the time of diagnosis and underwent surgery. Distribution of specialty of lead surgeon was: 55% Breast, 28% Plastic and 7% Sarcoma. Just under half (48%) were treated within Regional Sarcoma Centres.

Conclusion: UK NICE Guidelines suggest these tumours should be managed by specialist sarcoma teams within Sarcoma Centres, however this currently appears to be aspirational and regional variation is significant.

29. THE MAGSEED® EXPERIENCE: ONE YEAR ON

Judith Reid¹, Sian Tovey¹, E.J. Campbell^{1,2}, Sujata Pareek¹, Jacqueline Kelly¹, Penny Law¹, Jon Coldeway¹, Evaristo Mumba¹, Suzanne Elgammal¹. ¹University Hospital Crosshouse, Kilmarnock, United Kingdom; ²Royal Alexandra Hospital, Paisley, United Kingdom

Introduction: Patients with impalpable breast lesions require accurate localisation before surgery to optimise excision and minimise re-operation for compromised margins. We identified that our theatre utilisation and efficiency were adversely affected by localisation timing and radiological capacity, and adopted an innovative metallic seed technique as an alternative to wire guided excision. One year later, we reviewed our results.

Methods: We used the Magseed technique for 66 patients with single lesions <4cm from the skin surface. One additional patient had two lesions requiring localisation (total 67). Magseeds were inserted by two radiologists, and excised by four breast surgeons.

Results: Patient ages ranged from 35 to 83 years (mean 59.7, median 60). Fifty eight lesions were localised and removed for invasive cancer or DCIS. The remaining nine were excision biopsies in which one cancer was found. Seven specimens required re-excision for margins <1mm. Closest radial margin to malignancy measured between 0 and 19mm with a median value of 4mm.

All seeds except one (which required wire insertion) were localised successfully and removed with the lesion.

Conclusions: Our experience suggests Magseed is an effective alternative to wire localisation of impalpable lesions. Although numbers are small the re-excision rate, overall safety and ease of use appear acceptable. Performing localisation prior to the day of theatre has led to improved theatre utilisation.

Further studies to compare margin status, re-excision rate and specimen weight between matched cohorts of patients treated either by wire or Magseed localisation are planned, as well as formal evaluation of patient satisfaction.

30. INTERIM ANALYSIS OF AN EVALUATION OF CLINICAL OUTCOME AND PATIENT AND CLINICIAN SATISFACTION WITH MAGNETIC SEEDS COMPARED WITH GUIDE WIRES FOR LOCALISATION OF IMPALPABLE BREAST LESIONS FOR SURGERY

Aikaterini Micha¹, Victoria Sinnett¹, Robin Wilson¹, Elisabeth Adams², Elaine Patrick¹, Lauren Hector¹, Carla Chamberlain³, Ruth Edmonds³, Briony Bishop³, Gerard Gui³, Fiona MacNeill³, Nicola Roche³, Marios Tasoulis³, William Allum¹, Peter Barry¹, Jennifer Rusby¹, Katherine Krupa¹. ¹Royal Marsden NHS Trust, Sutton, United Kingdom; ²Aquarius Population Health, London, United Kingdom; ³Royal Marsden NHS Trust, London, United Kingdom

Introduction: Guide wire localisation remains the most commonly used technique for localisation of impalpable breast lesions in the UK. One alternative is magnetic seed localisation. We investigated the accuracy, re-excision rates, patient and clinician satisfaction in two consecutive cohorts.

Methods: A prospective service evaluation of consecutive cases was set up with Clinical Research Committee approval. Data were collected on clinicopathological findings, and patient, radiologist and surgeon satisfaction. 100 cases each of wire and Magseed localisation will be collected.

Results: To date, 116 consecutive cases have used wire localisation and 62 subsequent cases used Magseeds (30 cases used 2 or more to bracket the lesion). The localisation procedure was reported to be easy/very easy for 64.5% of wires and 84.9% of Magseeds. Transcutaneous localisation was easy/very easy for surgeons in 59.2% of wire cases and 80.4% of Magseeds and intra-operatively in 64.7% and 80% respectively, all statistically significant (Chi squared test). There were no statistically significant differences in patient-reported levels of pain, discomfort or anxiety during or after the localisation. The wire/seed was within 5mm of the lesion in 96 and 97% of cases respectively. Re-excision was required in 13.8% of wire cases and 13% of Magseeds.

Conclusions: Radiologists and surgeons find the Magseed procedures easier than wires, however, there was no difference in patient satisfaction with the two pathways. There was no difference in accuracy of placement or re-excision rates. Magseed offers an acceptable alternative to wire localisation. Impact on local service provision should also be considered.

31. A COMBINED SCORE OF TUMOUR NECROSIS, TUMOUR BUDDING AND TUMOUR-STROMA PERCENTAGE PREDICTS CANCER SPECIFIC SURVIVAL IN PRIMARY OPERABLE BREAST CANCER

Elizabeth Morrow^{1,2}, Antonia Roseweir^{1,2}, Fadia Gujam^{1,2}, Laszlo Romics^{2,3}, Alison Lannigan⁴, Paul Horgan², Donald McMillan², Joanne Edwards¹. ¹Institute of Cancer Sciences, University of Glasgow, Glasgow, United Kingdom; ²Academic Unit of Surgery, University of Glasgow,