

Conclusion: This small pilot study demonstrates the benefit of community outreach breast health events to BAME groups and supports the need for further events. In the future seminars will concentrate on the healthcare inequalities and challenges faced by individual communities with inclusion of information about breast reconstruction.

P034. REVIEW OF OUR INITIAL USE OF TOMOSYNTHESIS-GUIDED BIOPSY - HOW DID IT HELP?

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Introduction: As use of digital breast tomosynthesis (DBT) increases, there is a need for biopsy methods to sample abnormalities only on DBT. We have used DBT since 2014, with DBT-biopsy since August 2016, in screening and symptomatic clinics. We have reviewed use of DBT-biopsy to assess the management role of this new technique.

Methods: DBT-biopsies between 08/2016 and 05/2018 identified from PACS. Imaging findings, management decisions and biopsy outcomes were reviewed.

Results: 61 patients underwent DBT-biopsy over 21 months (57 screening, 2 recalled from surveillance mammography, 2 incidental calcifications in symptomatic patients). 21 masses, 21 distortions and 19 calcifications were biopsied. Reasons for using DBT-biopsy: 32 where the area was not identified on USS, 13 cases where DBT improved lesion accuracy and 16 for calcification where DBT was operator preference over stereotactic biopsy. There were 16 B5 diagnoses (9 B5a, 7 B5b). In 8/16 cases, the mammographic lesion was not identified by ultrasound. In 2, DBT-biopsy allowed more accurate lesion identification (multiple lesions or initial ultrasound biopsy at inaccurate site). 6 cases (for calcification/clips) used DBT-biopsy at user's discretion. In 45 cases, the DBT-biopsy was benign.

Conclusion: DBT-biopsy is a useful tool in the assessment of breast disease. It is particularly helpful in assessment of subtle distortions which were ultrasound occult, and where lesion localisation is difficult on conventional imaging. In addition, it provides a 'belt and braces' approach to low suspicion findings, where accurate benign biopsies can allow users to discharge the patient with increased confidence.

P035. COMPARISON OF POST-OPERATIVE PATIENT SATISFACTION AND HEALTH-RELATED QUALITY OF LIFE FOLLOWING LATISSIMUS DORSI (LD) FLAP BREAST RECONSTRUCTION, DEEP INFERIOR EPIGASTRIC PERFORATOR (DIEP) FLAP BREAST RECONSTRUCTION AND BILATERAL THERAPEUTIC MAMMOPLASTY USING BREAST-Q QUESTIONNAIRE

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Introduction: Patients' post-operative wellbeing determines their perceptions of the impact and effectiveness of breast surgical procedures. The aim of this study is to evaluate and compare patient-reported outcomes following the 3 different types of breast reconstruction.

Methods: Patients (n=182) who underwent bilateral therapeutic mastoplasty, LD flap and DIEP flap breast reconstruction at our unit were identified from a retrospective register and were sent BREAST-Q questionnaires. The collected data was analysed using Q-SCORE software to compare post-operative patient satisfaction with breast, outcome and care, and physical, psychosocial and sexual wellbeing.

Results: Seventy-five (41%) responses were received: 26 LD flaps, 26 DIEP flaps and 23 therapeutic mastoplasties. Bilateral therapeutic mastoplasty patients had higher BREAST-Q scores in post-operative satisfaction with breast and psychosocial well-being compared to DIEP flap patient cohort. However, there was no significant difference in physical or sexual wellbeing between these two groups. The LD flap group had relatively high satisfaction with post-operative back appearance. Satisfaction with information, surgeon and office staff was maintained across both DIEP flap and bilateral therapeutic mastoplasty groups but satisfaction with medical team varied. Detailed analysis of specific quality of life scores in correlation

with clinical characteristics of each group will be presented.

Conclusions: The most important goal of breast reconstruction is to improve quality of life. This study demonstrates patients' perception of body image following breast reconstruction and highlights the importance of post-surgical psychological impact. It suggests that women who undergo bilateral therapeutic mastoplasty report higher satisfaction and quality of life outcomes following surgery.

P036. PREDICTORS OF NON-SENTINEL NODE METASTASIS AND POORER PATIENT RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN PRIMARY BREAST CANCER: A 10-YEAR STUDY

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Introduction: The ability to predict non-sentinel node (non-SLN) metastasis in breast cancer patients has been an area of intense research for the past decade. This study aimed to identify predictors of non-SLN metastasis and level 3 node involvement. Further objectives included identifying factors which predicted poorer patient response to neoadjuvant chemotherapy (NAC).

Methods: Electronic patient records of 1088 patients who underwent ANC between 2007-2016 at the Royal Hallamshire Hospital, Sheffield, UK were reviewed. Clinicopathological characteristics were used to identify factors predicting lymph node metastasis.

Results: Larger tumour size (OR=1.025; CI=1.016-1.034; p<0.001), grade 3 (OR=3.706; CI=2.102-6.534) and grade 2 tumours (OR=2.174; CI=1.245-3.795) compared to grade 1 tumours (p<0.001), presence of lymphovascular invasion (LVI) (OR=2.832; CI=2.064-3.885; p<0.001), ER-negative tumours (OR=2.339; CI=1.472-3.717; p<0.001), and number of positive SLNs (OR=1.756; CI=1.333-2.313; p<0.001) were all significantly associated with non-SLN metastasis. In addition to these characteristics, lobular carcinomas (OR=1.832; CI=1.157-2.899; p=0.034) and multifocal tumours (OR=1.717; CI=1.108-2.662; p=0.016) were also significantly associated with level 3 disease. In patients who underwent NAC, larger tumour size (OR=1.040; CI=1.025-1.056; p<0.001), presence of LVI (OR=3.030; CI=1.673-5.488; p=0.001), and HER2-negative tumours (OR=1.983; CI=1.177-3.343; p=0.01) significantly predicted non-SLN metastasis, despite treatment. These same variables significantly predicted level 3 metastasis.

Conclusion: Based on the significant associations identified, multivariate analysis and development of an accurate model of predicting non-SLN metastasis will allow patients to make a more informed decision as to whether they wish to proceed with full ANC, participate in a clinical trial, or choose to have their axilla re-staged following neoadjuvant chemotherapy.

P037. MAGSEED LOCALISATION OF NON PALPABLE BREAST CANCER. IS THE FUTURE MAGNETIC?

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Introduction: Magseed is an alternative method of localising non palpable breast lesions that has addressed many of the limitations of wire guided localisation. It consists of a paramagnetic seed that can be visualised on mammography and ultrasound. Intraoperative localisation of the seed is achieved with the use of the Sentimag probe. The aim of this study was to prospectively compare localisation in patients undergoing wide local excision for non palpable lesions between Magseed and wire guided localisation.

Methods: We prospectively collected data on all patients undergoing image guided wide local excision between October 2017 and September 2018 in two academic breast units with a planned accrual of 100 consecutive patients undergoing Magseed localisation. Data was also collected on a cohort of 100 consecutive patients undergoing wire guided localisation in the same time period.

Results: Demographic and disease characteristics were well balanced

between the two groups. Intraoperative identification and excision of the localised lesion was successful in all patients as confirmed with specimen radiography. Overall no significant differences were observed in the proportion of patients requiring re-excision between the two groups (Magseed 16% vs. WGL 14% $p=0.692$). Specimens size by weight were similar for both groups; the mean weight was 39.6 gr in the Magseed cohort and 44.5 gr in the wire localisation cohort ($p=0.206$).

Conclusions: In our series Magseed localisation proved to be as reliable and effective as wire guided localisation in terms of lesion identification, excision with tumour free margins, re-operation rate and specimen weight.

P038. AN OBJECTIVE AESTHETIC OUTCOME TOOL USING 3-DIMENSIONAL SURFACE IMAGING (3D-SI) TO REPLACE PANEL ASSESSMENT FOR BREAST CONSERVING TREATMENT (BCT)

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Introduction: The aesthetic goal for BCT is maintenance of symmetry. No gold standard exists to evaluate aesthetic outcome. Panel assessment is most commonly used. With heterogeneous methodology, inherent bias, and poor internal consistency, comparison is unreliable. 3D-SI has advantages over standard photography in that it provides additional views and measures, is quick and simple, and does not require a photographer. It is, however, more expensive. We describe the development of an objective outcome tool using 3D-SI.

Methods: REC approved study. 290 women who underwent BCT 1-5 years previously had 3D-SI (VECTRA XT). 3D measures were derived using Mirror™ Software, and panel assessment was performed (5 members, blinded to patient ID and surgeon, Harvard 4-point scale). 190 women comprised a training set to create the tool. Measures were entered into a multivariate model to predict panel score. The predicted scores of the remaining 100 women were compared to observed panel assessment for validation.

Results: 6 objective measures were significantly associated with panel score by multivariate analysis and were used in the tool. Correlation between predicted and actual panel score for the training and validation set was moderate ($R=0.67$ & 0.65 respectively). Limits of agreement in Bland Altman were -1.2 to 1.2 in the training set and -1.2 to 1.1 for the validation set.

Conclusions: The preliminary tool has reasonable correlation but defaults towards the median panel score. Adjustment may be required to improve clinical utility. This objective tool will enable the communication and comparison of results in research and provides a method to benchmark clinical performance.

P039. LAVAGE COMBINED WITH MINIMALLY INVASIVE SURGERY IN TREATMENT OF PLASMA CELL MASTITIS: A CLINICAL STUDY

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More often seen as plasma cell mastitis (PCM) and granulomatous mastitis, non-lactating mastitis is regarded as one of the world's difficult and complicated diseases. Due to such characters as suddenness, rapid progress, difficult to cure, long course of disease and easy recurrence, the disease is called "non-fatal cancer." The average age of patients is 32, and the clinical manifestation is breast lumps accompanied by painful ulceration. Traditionally the treatment of the disease used to be surgical resection and incision drainage; however the treatment not only had a recurrence rate of 48.84% but also had a tendency of destroying the shape of the breasts. This presentation reports our treatment of the disease through individualized technical means such as duct scope, assisted vacuum resection, intravenous needle indwelling as well as single or combined syringe for flushing, repairing inflammatory areas to gain clinical effect of achieving complete and seamless healing. The report highlights the innovation in four aspects: (1) Breast tissue resection defects were avoided; (2) The treatment process is simple and there is less pain in the wounds; (3) Economical and practical

(4) Preservation of breasts and prevention of recurrence and (5) It is likely to be the first in China.

P040. RADIOLOGICAL AND SURGICAL EFFICACY OF NEOADJUVANT SINGLE VS DUAL BLOCKADE IN HER 2 POSITIVE BREAST CANCER AND ITS IMPACT ON SURGICAL PLANNING: A RETROSPECTIVE SINGLE CENTRE STUDY

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Introduction: Dual anti-HER-2 therapy with pertuzumab and trastuzumab has been shown to increase rates of pathological complete response in HER-2 positive breast cancers. The use of dual blockade was approved by NICE in Dec 2016, however the benefit is yet to filter into surgical practice to allow an increase in rates of breast conserving surgery.

Methods: A locally approved retrospective single centre service evaluation analysing all HER-2 positive patients managed with neoadjuvant chemotherapy (NACT) between January 2015 and April 2017. Breast imaging was also evaluated to ascertain correlation to surgical findings.

Results: 55 HER-2 positive non-metastatic breast cancer patients received NACT; of these 48 (24 dual blockade vs 21 trastuzumab alone) had MRI prior to and following chemotherapy. Dual blockade had greater radiological complete response (rCR, 71% vs 21% Herceptin) and superior pathological complete response (pCR). In respect to lymph node disease, rCR was achieved in 69% of patients managed with dual blockade (9/13) vs Trastuzumab alone (64%, 9/14). pCR was achieved in 73% cases treated with dual blockade (11/15), vs 28% (4/14) with trastuzumab. We intend to present our analysis on the potential impact on surgical planning with the change in the response rate by adding pertuzumab.

Conclusion: Use of neoadjuvant dual anti-HER-2 blockade increases rates of pCR and has the potential to increase BCS rates, leading to improved cosmesis and patient satisfaction.

P041. DO WAITING TIMES FOR SURGERY HAVE AN IMPACT ON BREAST CANCER TUMOUR SIZES?

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Background: Over the years, breast cancer incidence rates have been increasing, putting more pressure on the health service. With this yearly increase and the limitation of resources, there is always some waiting between presentation, diagnosis and treatment. This retrospective audit is to evaluate tumour growth while waiting for surgery (Approved by NHS Grampian Clinical Effectiveness Team).

Methods: Patients diagnosed with breast cancer who underwent wire guided wide local excision at Aberdeen Royal Infirmary in 2017 were identified and the first 100 were included. 62 of these patients had a measurable lesion on mammogram at presentation and on the day of surgery. The tumour diameters were measured by two radiologists independently comparing the mammograms at presentation and on the day of surgery. Tumour sizes were calculated as well as the difference between the sizes on presentation and on the day of surgery.

Results: The two radiologists had an Intraclass Correlation Coefficient of 0.812, showing that their measurements were in good agreement. Waiting times averaged 70 days. Paired t-test showed there was no significant difference between tumour volumes on mammograms taken at initial detection and on mammograms taken on the day of surgery ($p = 0.76$). Different waiting times from initial detection to surgery did not affect tumour volume significantly either ($p = 0.92$). Paired t-test also showed that tumours did not change in grades significantly either ($p = 0.235$).

Conclusions: Delays in treatment did not cause significant increase in tumour size or cause an advancement in tumour grade.

P042. EVALUATION OF A BREAST CANCER SURVIVORSHIP PROGRAMME: 7-YEAR PATIENT OUTCOMES AND SERVICE EXPERIENCE

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