

implications for treatment and surveillance in these patients.

04. POST-MASTECTOMY RADIOTHERAPY IN PATIENTS WITH IMMEDIATE BREAST RECONSTRUCTION – RESULTS FROM THE IBRA-2 (IMMEDIATE BREAST RECONSTRUCTION AND ADJUVANT THERAPY) PROSPECTIVE COHORT STUDY

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Introduction: Long-term data now indicates that post-mastectomy radiotherapy (PMRT) may positively impact on overall survival. As a result, the indications for PMRT are widening. Rates of immediate breast reconstruction (IBR) are increasing, but IBR remains controversial in the context of planned PMRT. The aim of this study was to examine current practice of PMRT in patients undergoing mastectomy with and without IBR in the iBRA-2 prospective cohort study.

Methods: The cohort included 2,540 patients undergoing mastectomy +/- IBR at 76 centres across the United Kingdom and Ireland between 1st July and 31st December 2016. Patients were recruited consecutively using the trainee collaborative model. Patient demographics, operative, oncological and adjuvant treatment data were collected and analysed comparing rates of PMRT in patients undergoing mastectomy +/- IBR.

Results: Of all patients in the cohort, 35.6% (n=909) were recommended for PMRT at the post-operative MDT meeting. In 4.9% (n=125) discussion of PMRT was advised. PMRT was significantly less likely to be recommended in patients undergoing IBR (32.1% of implant-only, 34.3% of pedicled flap, and 35.5% of free flap reconstructions) than in patients undergoing mastectomy alone (45.7%) (p<0.001).

On multivariate analysis, only implant-based reconstruction was inversely associated with PMRT (Odds ratio=0.66, confidence interval 0.44-0.99). Patients in Scotland (OR 0.35, 0.17-0.73) and Ireland (OR 0.36, 0.17-0.74) were statistically less likely to receive PMRT.

Conclusions: Approximately one third of patients undergoing IBR were recommended for PMRT with only implant-based reconstructions less likely to receive PMRT. This study also highlighted regional variation in PMRT practice which merits further investigation.

05. BRIDGING THE AGE GAP IN BREAST CANCER - ANALYSIS OF THE IMPACT OF COMORBIDITY, DEMENTIA AND FRAILTY ON THE RATES OF SURGERY IN OLDER WOMEN

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Background: Up to 40% of UK women >70 years with primary operable breast cancer are treated with Primary Endocrine Therapy (PET) rather than surgery, often due to co-existing co-morbidity or frailty. Factors predicting non-surgical treatment were assessed in a large prospective UK cohort study.

Methods: Prospective data from the multi-centre UK cohort study "Bridging the Age Gap" on treatment received (Surgery vs. PET) were analysed according to comorbidity (modified Charlson), dementia (MMSE) and frailty (ADL and IADL) using Chi Squared test in SPSS. National and

local ethics committee approval was obtained for all UK participating sites. **Results:** A total of 3460 women aged >70 years with operable breast cancer were recruited; 2784 were treated surgically and 493 received PET. Older age was associated with increased PET; with 4.0% of 70-74 year olds treated this way, compared to 49% of those 85+ (p<0.001). Increasing comorbidity was associated with greater PET usage; with 4.0% of patients with no comorbidity being treated with PET, rising to 31.9% for patients with 3+ comorbidities (p<0.001). A MMSE score of <27 was associated with an increased PET rate (24.2% vs 9.8% in those who scored 27+, p<0.001). Dependency in one or more ADL or IADL was associated with increased use of PET (8.7% vs 27.2% for ADL (p<0.001) and 7.1% vs 31.9% for IADL (p<0.001).

Conclusions: This analysis clearly demonstrates that extreme old age, comorbidity, dementia and frailty are important factors in determining treatment for older women diagnosed with operable breast cancer in the UK.

06. IMPACT OF PROGESTERONE RECEPTOR STATUS ON RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN OESTROGEN RECEPTOR POSITIVE BREAST CANCER PATIENTS

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Introduction: Breast cancer patients respond differently to neoadjuvant chemotherapy (NAC) based on hormone receptor subtype. Oestrogen receptor positive/HER-2 receptor negative (ER+HER-) patients respond poorest but effects of progesterone receptor (PR) status on response within this group has not been elucidated. The aim was to assess the impact of PR status on response to NAC in ER+HER- patients.

Methods: Patients receiving NAC over a seven-year period (2011-2017) were identified from a prospective database within a specialised breast unit. Clinicopathological details were collated for all patients. Primary outcomes including breast complete pathological response (PCR) rate and axillary PCR rate were compared between patients found to be progesterone receptor positive and negative. Secondary outcomes including grade and presence of lymphovascular invasion were also assessed.

Results: 206 patients were identified (151 in the ER+PR+HER- group and 55 in the ER+PR-HER- group). When compared with the PR+ group, patients found to be PR negative were more likely to achieve a breast PCR (3.3% vs 25.4%; Chi Square test; p=0.001). In patients who were initially node positive, PR negativity was associated with a higher rate of axillary nodal PCR compared to those found to be PR positive (12.2% vs 25.5%; Chi Square test; p=0.04). ER+PR-HER- patients were more likely to have higher grade tumours but not LVI.

Conclusion: Over a quarter of ER+HER- patients who are PR negative will have a complete pathological response to NAC in the breast and axilla and should be considered for NAC at diagnosis.

07. A SYSTEMATIC REVIEW AND META-ANALYSIS OF CLINICAL, PATIENT-REPORTED OUTCOMES AND COST OF DIEP FLAP VERSUS IMPLANT-BASED BREAST RECONSTRUCTION

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Introduction: Comparative data on clinical outcomes and cost of DIEP and implant-based reconstruction (IBR) is limited. We conducted a systematic review to compare cost, clinical and patient-reported outcomes (PROs).

Methods: The protocol was registered on PROSPERO (CRD42017072557) a priori. EMBASE, MEDLINE, Google Scholar, CENTRAL, SCI and Clinicaltrials.gov were searched from January 1994–August 2018. Two reviewers independently screened and extracted outcomes on complications, cost