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IMMEDIATE IMPLANT AND ADM BASED BREAST RECONSTRUCTION DURING THE COVID 19 PANDEMIC .

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Background: During the COVID pandemic within the NHS, primary surgery for newly diagnosed breast cancers was subjected to strict scrutiny to allow for equitable access to reduced theatre availability. This was primarily due to the lack of operating theatres, recovery areas as well as the redeployment of staff to other front-line areas and concern around the potential increase in peri-operative morbidity. A decision to suspend all immediate breast reconstructions (IBR) during the pandemic, was reluctantly taken by the great majority of NHS trusts. The breast unit at Guy's hospital, a high volume implant reconstruction centre, made a conscious decision to restart offering implant based IBR with strict caveats. We report a single centre peri-operative experience during the 1st surge.

Materials and Methods: We performed a retrospective audit of consecutive patients undergoing a Post Mastectomy Immediate Implant Reconstruction (PMIIBR) between May 2020 and September 2020. We specifically looked at return to theatre, hospital acquired COVID infections to staff and patients and explantation rates in this cohort. All these patients followed a green pathway. Most of these patients were unsuitable for a delayed autologous reconstruction or declined a mastectomy without an IBR.

Results: Between May and September 2020, a total of 18 patients underwent PMIIBR for breast cancer and risk reduction (only in breast cancer) at the breast unit at Guy's and St Thomas' NHS foundation trust, UK. 23 IBRs were performed in 18 patients, 5 were bilateral procedures and 13 were unilateral.

The median age of this cohort was 49 years.

The average surgical time was 128 minutes, and the average total theatre time was 177 mins (including anaesthetic time).

The average length of stay was 2.3 days.

33.3% (6/18) were ASA 1, 66.7% (12/18) were ASA 2

2/18 (11.1%) patients were known diabetics and 2/18 (11.1%) had a BMI > 35. However, neither of these developed any morbidity.

The return to theatre was observed in 8.7 % (2/23) of cases.

One case had partial localised superficial skin necrosis .

The other was an implant infection. She had an implant washout and exchange. Both were done as day care procedures.

None of the patients acquired COVID 19 infection due to their stay or return to theatre.

Conclusions: Our data showed that not a single patient contracted COVID. The additional operative time added on by the reconstruction was on average 30 minutes.

Our return to theatre rate was extremely low with no patient or staff acquiring COVID related morbidity.

Our explantation rate was 0%.

We are collating data from the 2nd surge and will publish shortly to support the safety of IBR during this pandemic.

Although our numbers are small, we are of the opinion that in future pandemics given our low IBR related morbidity figures, patients should not be denied IBR as far as possible as it is known to have a significant impact on their long term quality of life.

ESSO40-0210

PROGNOSTIC VALUE OF TYPE IV COLLAGEN EXPRESSION IN EARLY BREAST CANCER.

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Background: Breast cancer is the most common cancer and cause of cancer death among women. Localised breast cancer can be cured by surgery but the mortality remains high as some tumours metastasize early.

Type IV collagen (COL4) is a basement membrane protein and it is required for tissue repair processes, enables survival and function of endothelial and epithelial cells and regulates tissue function. Depending of the context, COL4 can have both pro- and anti-tumour effects, although the turnover and degradation of basement membrane collagens are most often associated with the invasive cancer phenotype. We have analysed the expression of COL4 in breast cancer tissue to see if the expression correlates with the prognosis of the patient.

Materials and Methods: Tissue samples from 1379 women with *in situ* and invasive breast cancer diagnosed in 1986-2004 were included in the study cohort and patients were monitored every two years through a journal review. Clinical data were collected with the latest follow-up done in the summer of 2019. COL4 expression in tissues was visualized using immunohistochemistry and the expression was graded as 1= mild expression, 2= moderate expression and 3= strong expression.

Results: Out of 1379, 916 women had an invasive breast cancer and out of these, COL4 staining was available for 769 patients. Eighteen percent of patients scored as having strong COL4 expression had died of breast cancer related events. Out of patients with lower scores (mild and moderate), 8% and 12% had died of breast cancer related events. Kaplan-Mayer curves showed that a higher COL4 score correlated with poorer survival (p= 0.49).

Conclusions: COL4 may function as a prognostic marker in breast cancer.

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PERIAREOLAR (BENELLI) MAMMOPLASTY – SINGLE CENTRE 5-YEAR EXPERIENCE

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Background: A recent international therapeutic mammoplasty (TeaM) multicentre cohort study demonstrated that therapeutic mammoplasty using all methods was a safe and effective alternative to mastectomy or conventional breast conserving surgery. Periareolar (Benelli) Mammoplasty is a round block oncoplastic volume displacement technique confining the scar to the areolar. This study explores the oncoplastic safety and complications over a 5-year period in a single institution.

Materials and Methods: Data was collected retrospectively from 1 January 2015 until 31 December 2019. The primary outcome was unplanned reoperation for complications within 30 days of surgery. Secondary outcomes included re-excision rates or further surgery, non-surgical complications, recurrence and deaths.

Results: There were 134 patients in the study period. The median age was 78 (range 35 – 91years). Invasive carcinoma was seen in 119 patients (89%) of which 98 had invasive ductal carcinoma, 16 invasive lobular carcinoma, 5 special type and pure DCIS in 15 (11%). Thirty four patients had multifocal disease (25%), majority patients had Grade 2 cancers (48%) and ER positive (90%) with small number of HER2+ cancer (8%). Re-operation was done in 29 patients (21%) of which 18 required re-excision (13%) and 11 had mastectomy (8%). One patient needed to return back to theatre for deep infection, 10 required oral antibiotics for superficial infection of which there was 2 nipple necrosis and non-operative seroma drainage was done in 20 patients. There was 1 local recurrence, 8 deaths with 4 due to distant metastases.

Conclusions: Benelli mammoplasty is a safe and robust oncoplastic technique allowing for safe oncological wide local excision of breast cancer with minimal complications and good aesthetic outcomes. Further work is required to explore the impact on quality of life.

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PREDICTORS OF ADVANCED STAGE DIAGNOSIS AND DELAY IN TREATMENT OF BREAST CANCER PATIENTS IN PAKISTAN

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