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from Depression. As per ICD-10, among Depressive patients, Major Depressive disorder (severe) was found to be most common and among anxiety disorders Generalised Anxiety Disorder was found to be the most common. Psychiatric co-morbidity was directly related to advanced stage of cancer older age, less education, less social support and prior history of psychiatric illness.

Conclusions: The results of the study puts the mental health to the forefront as it is one of the factors that is responsible for the overall outcome of the patients. Creating awareness not only among the general public but also among the health care professionals is important. As more general health professionals are educated, more they are likely to screen the patients with mental health conditions and it also helps in establishment of Consultation –Liaison Psychiatry services.

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WHAT PRE-OPERATIVE FACTORS HAVE AN INFLUENCE ON THE OUTCOME OF THE INTRA-OPERATIVE SENTINEL LYMPH NODE EXAMINATION?

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Background: Sentinel lymph node biopsy (SLNB) has been considered to be the diagnostic procedure of first choice for lymph node staging. There are two main techniques: histological (H&E) or molecular (OSNA). The aim of our work is to determine the relationship that determined pre-operative variables may have on the outcome of SLNB depending on the technique (H&E or OSNA).

Materials and Methods: We conducted a single-centre retrospective study of 534 patients with invasive breast cancer, T1-T2 tumour size and clinically-radiologically negative axilla, with indication for intraoperative SLNB. Chi-square was used for qualitative variables and t-Student for continuous quantitative ones. The multivariate analysis by logistic regression was based on the significant variables of the bivariate.

Results: Most were women (98.5%) with an average age of 56±12.1 years, who were referred for a single tumour (84.2%) below 2 cm (83.2%) and palpable in more than half of the cases (58.3%). OSNA was used as a method of intraoperative SLN analysis in 321 patients (60.1%) and H&E in 213 (39.9%).

SLNB was positive (micro and macrometastasis) in 199 cases (37.3%), of which 106 cases (19.9%) had macrometastases. In the analysis with the H&E technique, the variables that showed significant relation with the intraoperative involvement of the SLN were: tumour size ≥ 2 (OR:1.96; $p<0.05$), tumour palpability (OR: 4.33; $p<0.001$), lymphovascular invasion, (OR:16.77; $p<0.001$), the degree of differentiation (moderate with OR:4.30, $p<0.001$ and poorly differentiated OR:44, $p<0.001$) and the percentage of positive (micro and macrometastases) in 199 cases (37.3%), of which 106 cases (19.9%) had macrometastases. In the analysis with the H&E technique, the variables that showed significant relation with the intraoperative involvement of the SLN were: tumour size ≥ 2 (OR:1.96; $p<0.05$), tumour palpability (OR: 4.33; $p<0.001$), lymphovascular invasion, (OR:16.77; $p<0.001$), the degree of differentiation (moderate with OR:4.30, $p<0.001$ and poorly differentiated OR:44, $p<0.001$) and the percentage of ductal carcinoma in situ in the tumour biopsy (OR:0.98, $p<0.001$). In the examination with OSNA, the significant variables related to the affectation of the intra-operative SLN were: menopause (OR:0.63, $p<0.05$), the number of tumors (when it was multifocal or multicentric; OR: 1.93, $p<0.05$), clinical tumour size ≥ 2 (OR:2.35, $p<0.001$), tumour palpability (OR:1.62, $p<0.05$), lymphovascular invasion (OR:3.87, $p<0.001$) and degree of differentiation (moderate, OR:1.72, $p<0.05$ and poorly differentiated, OR:4.87, $p<0.001$).

Conclusions: In our study, histopathological variables (specifically lymphovascular invasion and degree of differentiation) were related as independent risk factors of intra-operative SNL involvement with either OSNA or H&E.

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DOES NEOADJUVANT CHEMOTHERAPY CONTRIBUTE TO BREAST CANCER POSTOPERATIVE COMPLICATIONS?

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Background: There is a trend for more conservative surgical approaches in breast cancer (BC), partly due to improvements in therapeutic options, including neoadjuvant chemotherapy (NC). However, postoperative complications (PC) still occur and can result in prolonged recovery and delay of adjuvant therapy. There have been controversial reports regarding the effect of NC on PC after BC surgery.

The aim of our study was to evaluate the impact of NC in PC rates of BC surgery in our center.

Materials and Methods: A retrospective analysis of PC in primary BC patients treated in a tertiary center between 01.01.2018 and 31.12.2019.

Results: We included 607 patients in our analysis. The median age at diagnosis was 55.5 (IQR 47–65) years and median BMI was 25.8 (IQR 22.9 – 29.7) kg/m².

NC was performed in 136 (22.4%) patients. Only 17 (2.8%) patients were under any hypocoagulation therapy. Sixty-eight (11.2%) patients had diabetes mellitus (DM) and 67 (11.0%) patients were smokers.

441 (72.7%) patients were submitted to breast-conserving surgery (78.0% of these submitted to oncoplastic reconstruction), and 166 (27.3%) were submitted to mastectomy (25.9% of these submitted to immediate breast reconstruction).

Overall, 32.6% of patients had PC, the most frequent being seroma formation (13.5%). Patients submitted to NC had significantly more PC (47.7% vs 30.4%; OR 2.092 CI 95% 1.404 – 3.117; $p<0.001$). When adjusted to known risk factors for PC (hypocoagulation, smoking, DM; age at surgery and BMI), NC was an independent risk factor for PC (adjusted OR 2.543, CI95% 1.383 – 4.674; $p=0.003$). However, this was due to seroma formation, which was significantly more common in the NC patient group (17.2% vs 7.3%; $p<0.001$). The rate of PC other than seroma (i.e. serious complications including hematoma, wound infection, wound dehiscence, skin necrosis) did not differ significantly between patients submitted and not submitted to NC. Hypocoagulated patients exhibited significantly more PC (68.8% vs 33.3%; OR 4.412 CI95% 1.511 – 12.882; $p=0.007$). Patient age, BMI, smoking and diabetes mellitus were not significantly associated with PC. Importantly, patients submitted to breast conserving surgery had less PC when compared to patients submitted to mastectomy (26.2% vs 55.8%; OR 3.559, CI95% 2.421 – 5.208, $p<0.001$), and those submitted to any form of oncoplastic reconstruction had significantly less PC as well (28.4% vs 45.6%; OR 0.474 CI95% 0.331 – 0.679, $p<0.001$).

Conclusions: In our cohort, in spite of NC significantly increase the PC rate, when seroma formation is excluded the rate of serious PC did not significantly increase after NC.

ESSO20V-0130

INDOCYANINE GREEN AS AN ALTERNATIVE TO RADIOISOTOPE IN BREAST CANCER SENTINEL NODE BIOPSY: A SINGLE CENTRE EXPERIENCE DURING COVID19.

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Background: Multiple feasibility studies have confirmed high sensitivity of indocyanine green (ICG) fluorescence mapping for sentinel node detection in early breast cancer. Due to relocation to a different hospital site without nuclear medicine facilities during the COVID19 pandemic, we adopted the ICG method in combination with blue dye and present our findings.

Materials and Methods: All consecutive patients undergoing sentinel node biopsy (SNB) for early breast cancer in NHS Tayside were included in

a prospective audit of surgical and pathology findings. All patients had a normal preoperative axillary ultrasound, including normal preoperative axillary ultrasound if neoadjuvant chemotherapy given, and had sentinel node biopsy injection of patent blue dye and ICG. Approval was obtained from the local Caldicott guardian for collection and use of personal data.

Results: Data was available for 50 consecutive female patients in whom 52 cases were performed due to bilateral disease, with a mean age of 61 years (range 33–87), with 44 patients undergoing primary SNB, 6 patients having 4 node SNB post chemotherapy, and 2 having repeat SNB for failed SNB ($n=1$) and previous ipsilateral cancer SNB ($n=1$). In 4 cases neither blue dye nor ICG was present in the axilla and were converted to axillary node sample. Of the 48 SNB cases in this series surgeons documented retrieval of 84 nodes in total, 67 with both ICG and blue dye, 15 nodes with ICG only and 2 nodes with blue dye only. Of the 48 SNB cases 12 were node positive (25%) including 2 cases with micrometastases or isolated tumour cells only. Histopathology showed in total 103 nodes retrieved with a mean nodal count of 2.1 per case (range 1–6), and in total 17 nodes were positive (16.5%). No patients contracted COVID19 during the peri-operative period.

Conclusions: SNB for breast cancer can be safely performed with ICG and blue dye with a short learning curve, as represented by node positivity and node retrieval rates comparable to previous multicentre studies of standard and/or ICG SNB. This procedure has allowed us to continue high quality SNB during the COVID19 pandemic.

ESSO20V-0131

PREDICTION OF RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER AND ITS PROGNOSTIC IMPACT – A SINGLE CENTRE EXPERIENCE

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Background: Neoadjuvant chemotherapy of breast cancer improves outcomes, especially in patients with locally advanced breast cancer. Further understanding of clinical and pathological factors influencing its outcomes is essential to define the optimal therapeutic strategy for each category of patients and to predict the response to the treatment.

Materials and Methods: Analysis of the data from our prospectively maintained breast cancer database was performed. The patients with invasive breast cancer, treated with neoadjuvant chemotherapy followed by surgery between June 2016 and August 2020, were included. Clinical response to neoadjuvant chemotherapy was assessed using the RECIST 1.1 criteria. The histologic response to neoadjuvant chemotherapy was defined as a complete pathological response (pCR) when there was no evidence of residual invasive tumor in the breast or axillary lymph nodes. P -value <0.05 was considered as statistically significant.

Results: The mean age of the 125 patients enrolled in the present study was 47.9 years (± 11.5 , 20 – 92 years). Adriamycin/Epirubicin and cyclophosphamide chemotherapy regimen were most commonly used (80/125 patients, 64%). A clinical complete response was observed in 11 patients (8.8%), partial response in 96 patients (76.8%), progressive disease in 9 patients (7.2%). A pathological complete response (pCR) was observed in 16 patients (12.8%). On univariate analysis, pCR was significantly associated with the NACT regimen (p -value=0.01), molecular subtype ($p=0.01$), and clinical stage ($p=0.02$). The clinical response was associated with a pathological response ($p=0.37$); however, it did not translate in terms of complete response ($p<0.01$). After a median follow-up of 14.3 months, no events (recurrence/death) had occurred in pCR group. Clinical response was associated with better OS ($p=0.05$) but not DFS ($p=0.94$). Both 3-year OS and DFS for patients with complete clinical responses were 90.9%.

Conclusions: The pathological complete response in breast cancer patients is shown to be higher in patients with triple-negative, Her2 enriched, and advanced stage at presentation. Clinical response is also a good predictor of pathological response.

ESSO20V-0132

INTRAOPERATIVE FROZEN SECTION ASSESSMENT OF CAVITY SHAVE MARGINS IN PATIENTS UNDERGOING BREAST CONSERVATION SURGERY

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Background: Surgical management of breast cancer has taken a paradigm shift from the early days of the radical Halstedian approach to a newer, relatively conservative approach. Breast conservation surgery (BCS) is the surgery of choice for early breast cancer (EBC). Pathological margin status is the single most important prognostic factor in patients undergoing BCS. Rates of margin positivity after BCS varies between 3–20%. Multiple techniques have been applied to decrease margin positivity rates in BCS. We evaluated the impact of Intraoperative frozen section assessment of cavity shave margins (IFSA) in patients with EBC undergoing BCS.

Materials and Methods: Analysis of data from the prospectively maintained departmental database of breast cancer patients with EBC who underwent surgery with the intent for BCS with IFSA of margins from 2016–2020 in our department was performed.

Results: A total of 55 consecutive patients had undergone BCS with IFSA of cavity shave margins. The median age was 48 years. Most of the patients were clinical stage I (9, 16%) or stage II (41, 75%). The mean operative time was 138 minutes, and the mean blood loss was 55 ml. The mean tumor size was 29.5 mm. Twelve patients had positive margins on IFSA of which seven underwent re-excision of margins in the same sitting to achieve negative margins with BCS, and five patients underwent a mastectomy. None of the patients had undergone re-surgery for positive margins. There were no false positive and false negative reporting of IFSA on the final evaluation.

Conclusions: Frozen section analysis of cavity shave margins is a simple yet effective technique to detect margin positivity. Implementation of IFSA helps in single-stage definitive surgery, thereby improving the efficacy of BCS and decreasing the rate of re-surgery.

ESSO20V-0142

FACTORS ASSOCIATED WITH RE-OPERATION FOR ONCOLOGICAL CLEARANCE IN BREAST CONSERVING SURGERY (BCS) FOR BREAST CANCER

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Background: In UK, second operations after Breast Conserving Surgery (BCS) are reported in up to 17.2% of cases*. This represents a burden for health care system and stress for patient. In era of new localization techniques for impalpable lesions, we conducted a retrospective single centre analysis to find clinic-pathological and treatment factors associated with positive margins after BCS.

Materials and Methods: Six hundred and thirty one patients were diagnosed with breast cancer from January 2018 to December 2019. Of these, 322 (51.03%) underwent BCS. Re-Excision was performed when one of the radial margin was less than 1mm in both invasive disease and in situ carcinoma (DCIS) as per Association of Breast Surgery Consensus Statement. Data collected included patient's age, Neo-adjuvant treatment, type of surgery (including BCS and mastoplasty), tumor size on Imaging and Histopathology, presence of DCIS, receptor status, nodal status and Lymphovascular invasion. Univariate Analysis was performed using SPSS 24.

Results: