(BiA-ALCL), Immediate implant reconstruction 239; early-delayed reconstruction 14. No patient was lost to follow-up.

Conclusion: NSM can be offered to patients with early and advanced breast cancer. It is oncologically safe and offers a superior cosmetic result than the standard mastectomy.

Conflict of interest: No conflict of interest.

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PROPHYLACTIC MASTECTOMY IN HIGH RISK WOMEN WITHOUT ANY KNOWN GENETIC MUTATION

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Background. The definition of high-risk patients remains controversial, including both mutation carriers and patients with evident familial history even in the absence of pathognomonic mutations. Thanks to the "Angelina effect", the prophylactic surgery underwent a considerable increase in recent years. The objective of our study is to evaluate the outcome of high-risk patients operated of prophylactic mastectomy.

Materials and methods. We retrospectively collected clinical data on all patients operated at their breast from 2002 to 2017 in our Breast Unit. We then divided the patients into three groups: low-risk patients, high-risk patients carrying a gene mutation (BrCa1, BrCa2, p53 or other) and high-risk patients without gene mutations (i.e. important familiarity but negative genetic test).

Results. During the considered period, we performed 4859 breast interventions. In about 12% of cases familiarity for breast cancer was reported, and in about 2.5% the criteria for genetic testing were met. The genetic test resulted negative for mutations in 25% of cases, positive for mutations recognized as predisposing to breast cancer in 67% of cases, and positive for mutations of uncertain significance in 8% of cases. 75% of the high-risk patients underwent prophylactic mastectomy, including 98 women with a recognized gene mutation and 5 non-mutated. Prophylactic surgery was performed at a median distance of about 12 months from the previous breast oncological intervention, and in about 30% of patients a consensual bilateral prophylactic oophorectomy was also performed. The incidence of complications was 21%, none of which required re-operation. At a median follow-up of 36 months, all patients undergoing prophylactic surgery are alive, healthy and disease-free, with an aesthetic result that is objectively and subjectively very satisfying.

Conclusions. Despite the prevalence of hereditary carcinoma in the literature of about 5%, in our population the familial history managed to identify about half of the expected cases (2.5%), and among these, the genetic test resulted positive in about two thirds of cases. Considering the overall and disease-free survival of women undergoing prophylactic surgery, and also taking into account the excellent aesthetic results obtained by the nipple-sparing mastectomy technique, prophylactic mastectomy results a safe and effective preventive intervention in reducing the breast cancer risk in high-risk patients, and should also be offered in selected cases in patients with a negative genetic test or mutations with uncertain significance.

Conflict of interest: No conflict of interest.

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RETROSPECTIVE STUDY OF CLINICO-PATHOLOGICAL FEATURES OF BREAST CANCER PATIENTS IN YOUNG WOMEN (<40 YEARS AGE) REPORTED AT MALABAR CANCER CENTRE

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BACKGROUND: Differences in the clinical and biological characteristics between young and older breast cancer patients have been observed in many cancer centres.Breast cancer in younger women may be more aggressive in their behaviour and more advanced at their initial presentation in younger patients.There is a paucity of data on breast cancer in younger women in India.The literature from the Indian subcontinent in this regard is scanty, and therefore in this study we particularly focused on the clinical, biological behavior of breast cancer in younger women.

MATERIALS & METHODS: Breast cancer patients reported at Malabar cancer centre(MCC) from January 2012 to December 2016 were part of the study population.Retrospective analysis of hospital records of all young (<40yrs) breast cancer patients was done.The list of patients with mentioned inclusion criteria was obtained from the Department of Cancer Registry.Demographic details like age at diagnosis,age of menarche,parity,family history of cancer,Body Mass Index was collected.Stage of tumor,Type of surgery,histology of the tumor,Hormonal receptor status and HER2neu receptor status was also collected from the records.Pretreatment Neutrophil-Lymphocyte Ratio and Platelet-Lymphocyte Ratio was also calculated.

Inclusion Criteria - All female patients diagnosed and treated with breast cancer from January 2012 to Dec 2016.

Exclusion Criteria - Male breast cancer ,Patients operated outside MCC The data was analyzed using tables and percentages using SPSS .

RESULTS:

1. 252 patients were registered .Mean age was 36 years.17.5% were nulliparous.
2. Body Mass Index-The Mean was 36.09 kg/sq metre.There was no correlation between Pretreatment Body Mass Index with Nodal Metastasis.
3. Stage II was the most commonly reported at 49.6% (125 patients).
4. Pretreatment Neutrophil Lymphocyte Ratio(NLR)-The Mean was 2.3 .There was no correlation between NLR and Nodal Metastasis.
5. Pretreatment Platelet Lymphocyte Ratio(PLR) -The Mean was 123.28 .There was no correlation between PLR and Nodal Metastasis.
6. Hormone Receptor Status -78 patients (31%) were Triple Negative Breast Cancers.
7. The most common site of recurrence was Contralateral Breast followed by Bone and Liver.

Conclusions: his is probably first Indian study that has not missed important factors like Nulliparity , Family history , Body Mass Index , Markers of systemic inflammation and Types of surgical intervention & Pattern of recurrence .Unlike other cancers like prostate,esophagus and lung, there was no significant association between pretreatment NLR,PLR and BMI on the nodal or distant metastasis in young (</= 40 yrs) breast cancer patients.High grade (2 & 3) are more in young patients.Annual Mammogram should be used judiciously to reduce the burden in the form of cost to the hospital and anxiety to the patient.

Conflict of interest: No conflict of interest.

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THE RELATIONSHIP BETWEEN CARDIAC DOSIMETRY AND TUMOUR QUADRANT LOCATION IN LEFT SIDED WHOLE BREAST AND CHEST WALL RADIOTHERAPY FOR ADJUVANT BREAST CANCER

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Background: Adjuvant radiotherapy is indicated in breast cancer patients who have undergone breast conservation surgery and in high-risk mastectomy patients to decrease the incidence of local-regional recurrence and improve overall survival. This is not without risks because of cardiac exposure especially in left sided cancers. Though there have been studies looking at cardiac doses, there is little data correlating doses to the breast quadrant treated. This could have implications in clinical practice in terms of radiation planning and patient counselling. Our study aims to

investigate whether there is potential correlation between the breast tumour location and the radiation dose to the heart.

Material and methods: All patients that had radiotherapy for breast cancer in Aberdeen Royal Infirmary in 2010 were identified. For Left sided tumours, breast tumour location was established from the notes and imaging. All patients for Radiotherapy were planned on the Eclipse planning system to receive 40Gy in 15 fractions using photons, and any boost dose was delivered with electrons. Radiotherapy planning CT scans were reviewed, the heart was outlined and the cardiac doses were measured. The mean cardiac dose of radiation, the maximum dose and volume of the heart in the radiotherapy field were determined using the eclipse radiotherapy planning system. Statistical analysis was performed using IBM SPSS version 24.

Results: Out of 158 patients, 40 had mastectomies and 118 had breast conservation. Out of the patients that had conservation, 80 had Upper Outer Quadrant (UOQ) tumours, 14 Upper Inner Quadrant (UIQ), 12 Lower Inner Quadrant (LIQ), 11 Lower Outer Quadrant (LOQ) and one had central tumour. The average volume of the heart in the field was 1.19%, with the highest result for LIQ tumours (1.56%) and the Lowest for the LOQ tumours (0.80%). The same was noted with the mean heart dose, with 1.83Gy for LIQ tumours and 1.45Gy for the LOQ. For the maximum heart dose, mastectomy was the highest followed by LIQ tumours and the lowest was for LOQ. The data was analysed using Kruskall-Wallis, the mean volume of the heart and the mean cardiac dose did not reach statistical significance, but the maximum heart dose did.

Conclusions: The benefits of radiotherapy after breast cancer surgery have been well established. The organs at risk, especially the lung and the heart receive radiation, causing side effects, and further technical advances are underway in an attempt to reduce this. For patients undergoing BCS, one would expect the LIQ tumours to receive higher incidental cardiac irradiation in an attempt to treat the tumour bed, which in fact is seen in our cohort though the results didn't reach statistical significance. This study highlights the different potential cardiac doses, in relation to the quadrant of the breast tumour during radiotherapy.

Conflict of interest: No conflict of interest.

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VALIDITY OF THE ONLINE PROGNOSTICATION TOOL "PREDICT" FOR YOUNG JAPANESE BREAST CANCER PATIENTS

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Background: "PREDICT" is increasingly being used as an online prediction tool in clinical practice, even in Japan. Especially for young breast cancer patients, we sometimes need more detailed data on an individual level about how much adjuvant treatment can reduce the patients' mortality so that they can decide whether to undergo adjuvant treatment based on their various background characteristics, such as social activities, role in the family, or desire to maintain fertility. However, the validity of "PREDICT" has not been clarified for young Japanese breast cancer patients.

Material and methods: This was a retrospective review that included breast cancer patients aged under 35 years diagnosed with unilateral stage I-III breast cancer at Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital between January 2004 and June 2014. The predicted 5-year overall survival of each case was calculated using PREDICT, and its validity was assessed by comparing it with the observed survival.

Results: A total of 57 patients were enrolled, with a median follow-up of 8.9 years (range: 1.0-13.0 years). Overall, 33% of patients were node-positive, and 65% of patients had stage II or III disease. The subtypes of all patients were as follows: 35 cases (60%) were ER-positive/HER2-negative; 8 (14%) were ER-positive/HER2-positive; 7 (13%) were ER-negative/HER2-positive; and 7 (13%) were triple-negative. Forty-eight patients (84%) underwent adjuvant chemotherapy, and 40 of 43 patients (93%) who were hormone receptor-positive underwent adjuvant hormonal treatment. During follow-up, 6 patients (10%) died from breast cancer, of whom 3 (5%) died within 5 years from initial therapy. Two patients had a predicted 5-year survival of under 50%: one died within 2 years from initial therapy, and the other developed distant recurrence within 2 years of initial

therapy. For 36 cases who had a predicted 5-year survival of over 90%, the predicted 5-year death rate was 0.4% (1.4 persons), and none died within 5 years. For the other 19 cases with a predicted 5-year survival of 50% to 90%, the predicted 5-year death rate was 14.2% (2.6 persons), and 2 patients (10.5%) died within 5 years of initial therapy.

Conclusion: For young Japanese breast cancer patients, the predicted 5-year survival by "PREDICT" did not deviate from the observed 5-year survival, which suggests that "PREDICT" is a useful tool even in Japanese clinical practice. For young patients whose predicted 5-year survival is under 50%, we need to establish more effective strategies.

Conflict of interest: No conflict of interest.

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SURGICAL TREATMENTS AND SURVIVAL OUTCOMES OF ELDERLY PATIENTS WITH BREAST CANCER -A COMPARISON OF PATIENTS AGED 60-79 YEARS AND OVER 80 YEARS-

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Background: Breast cancer is the most common cancer in women. Global life expectancy has increased. Cancer care in elderly patients is complex. Elderly patients should be managed according to their individual health status and not according to age. We reviewed our local practice and outcomes in elderly patients with breast cancer. The primary aim of this study was to analyze the surgical management and the outcomes in elderly patients. The secondary aim was also to evaluate the biological characteristics of the primary tumor.

Material and Methods: A retrospective study was conducted. In this study, we have included breast cancer patients aged over 60 years, treated at our hospital between2003 and 2015. Data was collected from clinical records. Surgical treatments, survival outcomes and clinicopathological characteristics were compared with patients aged 60-79 years and patients aged over 80 years. Estrogen receptor (ER), progesterone receptor (PR), and Ki67 were assessed by immunohistochemistry (IHC). Positive ER or PR status was defined as the presence of $\geq$1% positive cancer cells. Human epidermal growth factor receptor 2 (HER2) positivity was based on an IHC score of 3+ and/or a fluorescent in situ hybridization-positive result.

Results: A total of 779 breast cancer patients aged over 60 years were included in this study. Of them, 692 (88.8%) were diagnosed at 60-79 years and 87 (11.2%) were over 80 years. Overall survival was significantly shorter in patients aged over 80 years compared to those aged 60-79 years (p < 0.05), although there was no difference in relapse-free survival between the two age groups. Tumors in patients aged over 80 years were significantly larger than those in patients aged 60-79 years (P <0.05). Patients aged over 80 years were more likely to undergo total mastectomy than those aged 60-79 years (P < 0.05). In addition, patients aged over 80 years were less likely to undergo axillary lymph node dissection than those aged 60-79 years (P < 0.001). There were no significant differences in hormone receptor status and HER2 status between the two groups. Patients aged 60-79 years received chemotherapy more often than patients aged over 80 years (P < 0.001). There was no difference in the percentage of patients receiving endocrine therapy between the two groups. There were no deaths in relation to surgery.

Conclusions: Although there is no standard of care for elderly patients, advanced age should not be considered a limitation to surgical treatment by itself. Surgical treatment for breast cancer in elderly patients, in our experience, is feasible and safe.

Conflict of interest: No conflict of interest.

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BREAST MRI VS TRADITIONAL TRIPLE ASSESSMENT IN THE PREOPERATIVE ASSESSMENT OF BREAST CANCER PATIENTS. DOES MRI AFFECT CORRECTLY THE DECISION ABOUT THE EXTENT OF THE SURGERY? A STUDY BASED ON THE FINAL HISTOLOGY SPECIMEN

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