

SS1-Is There Any Relationship Between Disease Activation and Changes in Cytokine Levels in Patients with Granulomatous Mastitis?

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Objective: Idiopathic granulomatous mastitis (IGM) is a rare benign chronic inflammatory breast disease. Although the etiology is unknown, some conditions such as autoimmune diseases, infectious causes, hormonal disorders and pregnancy are blamed. Cellular or humoral immune system disorders may be seen in patients. Cytokines are proteins involved in immune function, inflammation and wound healing. Interleukin (IL) -4; is released from T cells and mast cells and is the most important stimulant of immunoglobulin E production. IL-8; is released from macrophages and is responsible for chemotaxis. IL-10 acts as an inhibitor in the control of the immune response. IL-17 plays a proinflammatory role. TNF- α is the most important mediator of acute inflammatory response. The aim of this study was to evaluate the levels of IL-4, IL-8, IL-10, IL-17 and TNF-alpha in patients diagnosed with IGM.

Materials and Methods: 47 patients with pathologic diagnosis of IGM and 30 healthy volunteers were included in the study. Patients were divided into two groups as "active" and "in remission. Serum IL-4, IL-8, IL-10, IL-17 and TNF- α levels were measured by ELISA.

Results: Of 47 patients diagnosed with idiopathic granulomatous mastitis, 21 had active lesions. There was no difference in IL-4 levels between the patient and control groups. IL-8, IL-10, IL-17 levels were significantly higher in the patient group compared to the control group. IL-8 levels were significantly higher in patients with active disease than those in remission; IL-10 levels were higher in patients in remission and the difference was statistically significant. Serum TNF- α levels were higher in the control group but not statistically significant.

Conclusion: The association of idiopathic granulomatous mastitis with rheumatologic symptoms and diseases suggests immune dysregulation and autoimmunity in the etiology. In this study, we investigated IL-4, IL-8, IL-10, IL-17 and TNF- α levels in order to shed light on etiopathogenesis. The results show that immune dysregulation has an effect on the development and control of the disease. Further studies are needed to determine the effect of these markers on prognosis. In addition, this study will shed light on the use of monoclonal antibodies against cytokines in the treatment of resistant patients.

Keywords: Idiopathic granulomatous mastitis, etiopathogenesis, cytokin

SS3-Single Center Experience in the Management of Idiopathic Granulomatous Mastitis

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Objective: The aim of this study was to determine the clinical and demographic characteristics of patients with idiopathic granulomatous mastitis (IGM) and to compare treatment methods.

Materials and Methods: The demographic characteristics, clinical findings and treatment methods of 42 patients diagnosed with idiopathic granulomatous mastitis between January 2010 and January 2019 were reviewed retrospectively.

Results: The mean age of the patients was 35.2 (23-50) years. One patient had nulliparous, three had pregnancy and four had additional rheumatologic diseases. The most common complaints were mass, redness and discharge. Breast USG was performed in all patients and breast MRI was performed in 23 patients. While irregular confined fluid collections were frequently detected on breast USG, contrast enhanced mature and immature abscess foci were the most common findings on breast MRI. Idiopathic granulomatous mastitis was diagnosed by incisional biopsy in 7 patients and tru-cut biopsy in 35 patients. Six patients underwent abscess drainage after diagnosis. All patients were started on methylprednisolone (64 mg/day) and called for a follow-up visit 6 weeks later to assess treatment response. Methylprednisolone treatment was continued in patients whose clinical and radiological regression was detected and they were called for control at 4-week intervals. Patients who did not respond to methylprednisolone treatment or developed side effects were referred to surgical treatment. The mean duration of methylprednisolone use was 14.8 (6-60) weeks. The mean follow-up period was 14.5 (2-48) months. Methotrexate was initiated in 3 patients due to early inability to tolerate methylprednisolone. There was no recurrence in this subgroup. Complete response was achieved clinically and radiologically with methylprednisolone in 27 patients. After complete repetition of the disease, 3 patients developed recurrence and were referred to surgical treatment. Surgical treatment was performed in 15 patients. Mastectomy was performed in 5 patients and segmental mastectomy was performed in 10 patients.

Conclusion: Autoimmunity is thought to be responsible for the development of idiopathic granulomatous mastitis. Therefore, methylprednisolone and other immunosuppressive agents play an important role in the treatment. However, the difficulty in tolerating the side effects of

immunosuppressive therapy and nonresponsiveness to treatment necessitates surgical treatment of the patients although it is a benign disease and causes organ loss.

SS4-Evaluation of Lymphocyte Sub-Groups in Patients with Idiopathic Granulomatous Mastitis

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Objective: Although idiopathic granulomatous mastitis (IGM) is rare, it is especially common in Egypt, Iran, India, Pakistan and Turkey. The etiology of IGM is not known up to now, autoimmunity and immune dysregulation have been recently discussed. The aim of this study was to investigate the peripheral blood lymphocyte subgroups in IGM patients with both active lesion and in remission.

Materials and Methods: Twenty-six patients with pathological diagnosis of IGM with active lesion and 25 patients with IGM in remission were included in the study. The control group consisted of 28 age-matched healthy subjects. Peripheral lymphocyte subgroups were analyzed by flow cytometry.

Results: The percentages of T-helper lymphocytes (Th) were $42.87 \pm 7.67\%$ and $48.83 \pm 5.56\%$ in all IGM patients and the control group, respectively, and the difference was statistically significant ($p=0.001$). The percentages of natural killer (NK) cells in all IGM patients and control group were $13.9 \pm 6.95\%$ and $10.74 \pm 4.7\%$, respectively, and the difference was statistically significant ($p=0.035$). Other total lymphocytes, cytotoxic T lymphocytes, B lymphocytes, natural killer-T (NKT) cell and double negative T (DNT) cell percentages were not different. Subgroup analyses was performed for patients with active lesion and those in remission. When the patients with active lesion, in remission and control group were compared, Th percentages were $41.9 \pm 5.85\%$, $43.89 \pm 9.21\%$ and $48.83 \pm 5.56\%$, respectively ($p=0.02$). The difference between patients with active lesion and healthy group was also statistically significant ($p=0.001$). Other total lymphocytes, cytotoxic T lymphocytes, B lymphocytes, NK, NKT cell and DNT cell percentages were not different.

Conclusion: IGM is defined as localized form of granulomatous disorders, and in this study lower T-helper lymphocytes and NK levels in patients suggest the presence of systemic immune dysregulation. These studies which will help to reveal the etiopathogenesis will shed light on the development of effective treatment strategies.

Keywords: Idiopathic granulomatous mastitis, Lymphocyte sub-groups etiopathogenesis

SS5-Approach to Axilla after Neoadjuvant Chemotherapy in Breast Cancer

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Objective: At present, neoadjuvant chemotherapy is increasingly being used to perform a limited axillary approach and breast conserving surgery in both locally advanced and operable breast cancers.

Materials and Methods: Between 2003 and 2019, 119 female patients who underwent neoadjuvant chemotherapy (Neo-C) for breast cancer were examined in two groups. In Group 1 (AD), 53 consecutive patients underwent standard Level I-II axillary dissection after Neo-C. Sixty six patients in the second group, who were clinically and radiologically node-negative after Neo-C, underwent sentinel lymph node biopsy (SLNB). Technically, SLNB is performed via the dual method together (radiocolloid Tc-99m nanocolloid and isosulfan blue). At least 3 sentinel lymph nodes were removed. In addition, all non-sentinel lymph nodes that were suspected macroscopically were excised. Sentinel lymph nodes were evaluated pathologically by peroperative frozen section method and axillary dissection was performed in cases with involvement. All patients who underwent SLNB received adjuvant radiotherapy.

Results: The mean age of the two groups was 49 years. There was no significant difference between clinicopathological parameters. The mean tumor size in AD and SLNB groups was 3.73 (0-16) cm and 1.82 (0-9) cm ($p<0.001$). The mean number of positive lymph nodes was 7 (0-34) and 3 (0-25) in the SLNB group and AD-applied SLNB group. ($p<0.001$). The rate of breast conserving surgery was significantly higher in the SLNB group. (71.2% vs 17%) ($p<0.005$). In the SLNB group, 28 (42.4%) patients were SLN negative and did not require further axillary intervention, and 26 (39.4%) patients were SLN positive and underwent axillary dissection. Axillary dissection was performed in 12 (18.2) pa-

tients whom SLN isolation was unachievable. Overall survival was 94 months in the AD group and 89 months in the SLNB group ($p=0.346$). Disease-free survival was 97 months in the AD group and 98 months in the SLNB group ($p=0.017$).

Conclusion: Sentinel lymph node biopsy is a safe method in experienced centers for locally advanced and operable breast cancers receiving neoadjuvant chemotherapy.

SS6-Clinicopathological and Prognosis of Pregnancy and Lactation-Associated Breast Cancer

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Objective: Although breast cancer is rare during pregnancy and lactation, it has increased in recent years. Management of this cancer is determined according to the trimester of pregnancy. The aim of this study was to determine the clinical and pathological characteristics including molecular subtypes of breast cancer during pregnancy and lactation.

Material and Methods: Data of 6085 patients identified in Breast Cancer Registry Program of İstanbul Medical Faculty General Surgery Breast Diseases Unit between 1989-2019 were retrospectively analyzed. Twenty-four cases were diagnosed with breast cancer during pregnancy and lactation, and their clinical and histopathological features were determined.

Results: Median age is 36 (26-42). Of those, 14 (%58.3) were diagnosed during pregnancy and 10 (%41.7) during lactation. The majority of pregnant cases were in the second trimester ($n=8$, %57). Patients with lactation associated breast cancer were more likely to have family history compared to patients with pregnancy associated breast cancer (60% vs 7%, $p=0.009$). The majority of cases were cT1&T2 ($n=18$, %75) and 12 of cases were axilla-positive (cN1-2, %50). Neoadjuvant chemotherapy was performed in 54% ($n=13$) of the patients. The majority of patients with surgery ($n=22$) underwent mastectomy ($n=17$, 77%) and axillary lymph node dissection ($n=15$, 68%). Invasive ductal cancer ($n=16$, 67%) was the most common histology determined in surgical specimen ($n=8$, 33%). Overall, 63% ($n=15$) of patients had hormone receptor positive tumors, whereas cerb B2 positivity was detected in 6 patients (25%). Furthermore, most of the invasive tumors (75%) had high Ki-67 scores (>20%). Molecular subtypes were luminal-A in 3 cases (13%), luminal-B in 12 cases (52.2%), nonluminal Her2 groups in 4 cases (17.4%) and triple negative in 4 cases (17.4%). No statistical significance could be found between pregnancy or lactation groups regarding tumor characteristics. In 33.5 months follow-up period (8-120), 5 patients (21%) had distant organ metastasis in first 24 months ($n=4$) and between 25-36 months ($n=1$). The 5-year disease-free and overall survival was respectively 70.4% and 86.6%. The 5-year disease-free survival rate was found to be higher in the pregnancy group was higher than the lactation group ((87.5% vs 70.0%; $p=0.190$). Furthermore, 2 patients (8%) had breast cancer-related death.

Conclusion: Pregnancy and lactation-related breast cancer has aggressive tumor characteristics such as high Ki-67 scores, non-luminal Her2, and triple negative molecular subtypes. Furthermore, early distant organ metastasis in the first 3 years is common in these patients that should be considered in the management of disease with poor prognosis.

SS7-Surgical Management of Breast Cancer in Octogenarians

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Objective: Breast cancer is one of the most common types of cancer and long-term survival is high in patients. Between the age of 80-89 years people called as "Octogenarian" which had an increasing rate in the population. The aim of this study was to examine the women over age 80 on breast cancer screening, diagnosis, surgical treatment, postoperative morbidity and mortality. There is no clear data for the screening and treatment of breast cancer for octogenarians. While this group determines the treatment options in patients with advanced breast cancer, the choice of treatment of the physicians influences the choice of surgical treatment in patients presenting with locally advanced tumors secondary to dementia.

Materials and Methods: In this study, we aimed to present our surgical treatment approach and clinical demographic characteristics of patients with non-metastatic breast cancer aged 80 years and older who underwent surgery for breast malignant neoplasm in Tepecik Training and Research Hospital of Health Sciences University. Patients over 80 years of age who were diagnosed with breast cancer between January 2016 and January 2019 were evaluated retrospectively. Demographic data, laboratory, radiological examinations, pathological findings, postoperative morbidity and survival were evaluated.

Results: In our study, there were 35 patients diagnosed with breast cancer over 80 years of age, one of them was male and 34 were female. The mean age of the patients was 81.74 (min: 80, max: 88). Bilateral breast carcinoma was seen in 2 patients, in 20 patients the tumor was left right side localized, in 13 patients the tumor was right side localized. Axilla was negative in 17 patients and axilla positive in 18 patients. The mean tumor size at the time of diagnosis was 34.3 mm (min: 8, max: 80). Nine patients underwent modified radical mastectomy, 18 patients under-

went breast conserving surgery with sentinel lymph node, 8 patients underwent simple mastectomy and sentinel lymph node. Postoperatively three patients were reoperated due to hematoma. Postoperative survival ranged from 6 months to 37 months.

Conclusion: In the planning of treatment of advanced age breast cancer; the presence of comorbid diseases is a serious factor in the decision of the operation. Although the number of patients included in our study group was small; we think that surgical treatment can be performed safely in octogenarians diagnosed with breast cancer with good performance with large series of studies.

Keywords: Breast cancer, advanced age, octogenarian

SS11-Axillary Dissection, Is It Always Necessary in Patient Receiving Neoadjuvant Chemotherapy due to Breast Cancer?

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Objective: With the development of neoadjuvant chemotherapy (NACT) drugs, neoadjuvant chemotherapy is increasingly used in the treatment of breast cancer. Complete or near complete response rates in primary tumour are progressively increasing as well metastatic lymph nodes in the axilla are regressed. While surgeons had previously thought that lymph nodes at all axillary levels should be completely removed, it has been shown that has no effect on survival. Limited lymph node dissection for staging is sufficient. One reason for this tendency is the possible morbidity of axillary dissection (AD), which decreases the comfort of life. Therefore, surgeons are now looking for ways to not perform unnecessary axillary dissection. AD is gradually being replaced by sentinel lymph node biopsy (SLNB). It is known that lymph node negativity can be achieved after chemotherapy. In this study, we investigated the effect of neoadjuvant chemotherapy on axillary metastases.

Material and Method: 154 patients who underwent neoadjuvant chemotherapy (NACT) and underwent breast conserving surgery / total mastectomy + AD were included in the study. The data were analyzed retrospectively. Fifteen patients had inflammatory breast cancer. Physical examination records, USG, MRI, PET/CT and axillary lymph node biopsy results before neoadjuvant chemotherapy were evaluated. Results were compared with pathological results of axillary dissection material.

Results: Total mastectomy was performed in 117 patients and breast conserving surgery was preferred in 37 patients. In 32 patients who underwent fine needle aspiration biopsy before NACT, malignant lymph node was found in axilla. The pathology of AD was reported as malignant in 53.1% of these patients, and no malignancy was detected in 46.9% of them. 52.7% of 129 patients who has radiological axillary pathological lymph nodes were found to be malignant after NACT but 47.3% was as benign detected. When clinical, imaging and biopsy results were taken together, pathological axillary lymph nodes were detected in 138 patients. After NACT malignancy continued in 54.3% of them and response was obtained in 45.7%.

Conclusion: Overall, approximately 46% of patients with NACT respond to chemotherapy in metastatic axillary lymph nodes. More studies can help us to answer the questions what type of breast cancer has a better response, which chemotherapy regimen are more effective.

Keywords: Breast cancer, neoadjuvant chemotherapy, axillary lymph node dissection

SS14-Prediction Value of Neutrophil Lymphocyte Ratio and Platelet Lymphocyte Ratio for Pathological Complete Response after Neoadjuvant Chemotherapy

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Objective: Among patients with breast cancer, pathological complete response to neoadjuvant chemotherapy is an important prognostic predictor of the survival. This study aimed to investigate the relationship between inflammatory biomarkers such as neutrophil lymphocyte ratio (NLR) and platelet lymphocyte ratio (PLR) along with pathological complete response (pCR) and molecular subtypes among patients with breast cancer who underwent neoadjuvant therapy.

Materials and Methods: 105 patients with breast cancer who were first administered NAC then operated were evaluated retrospectively. NLR and PLR from complete blood counts done at most a month before starting the NAC treatment were analyzed. For statistical analysis, NCSS (Number Cruncher Statistical System) 2007 (Kaysville, Utah, USA) was used. Statistical significance was defined as a $p < 0.05$.

Results: The average tumor size before the NAC was 32.6 ± 15.6 mm. In 35.2% of the patients ($n=37$) a pCR was achieved after NAC. The distribution of this result among the molecular subtypes was as follows: Luminal A 18 (18 pCR (-), 0 pCR (+)), Luminal B 42 (32 pCR (-), 10 pCR (+)), HER2+ 32 (9 pCR (-), 23 pCR (+)), and triple negative (TN) 13 (9 pCR (-), 4 pCR (+)). The pCR of HER+ patients was found to

be statistically significant ($p < 0.05$). pCR was not detected in Luminal A group. Table 1 and 2 shows the relationship between NLR, PLR and pCR; the relationship was not statistically significant ($p > 0.05$).

Conclusion: We concluded that NLR and PLR did not serve as a predictor of the response to NAC among patients with breast cancer. The study can be repeated with a greater number of patients.

SS15-Magseed Localization for Non-Palpable Breast Lesions

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Objective: The extensive availability of breast cancer screening programs and improvement in diagnostic imaging have led to more frequent detection of clinically occult breast lesions. Currently the most widely adopted approach in excising non-palpable breast lesions is wire-guided localization. The objective of this study was to evaluate the feasibility of using a magnetic seed system for preoperative localization of localization of nonpalpable breast lesions.

Materials and Methods: Magseed (Endomagnetics, Cambridge, UK) is composed of proprietary stainless steel and 5×1 mm in length. Magseeds were inserted into the centre of the target lesions using local anesthetic and ultrasound or stereotactic guidance. Intraoperative Magseed localization was performed by the surgeon using magnetometer (Sentimag). Accuracy of localization, re-excision rate, surgical margins and re-excision rate were evaluated.

Results: Fourteen patients underwent breast occult lesion localization with using Magseed procedure. The mean age of the patients was 48.5 (31-65) years. Non-palpable breast lesions were localized and excised accurately in all cases. Pathologic examination revealed that 8 patients had malignant and 6 patients had benign breast lesions. Surgical margins were clear in all malignant case and none of them needed re-excision.

Conclusion: Early clinical experience suggests that Magseed is a feasible alternative method of breast lesion localization. This technique can be performed in clinics without need for a nuclear medicine department.

SS16-Evaluation of the Diagnosis of Sclerosing Adenosis by Core Needle Breast Biopsy and Mass Excision

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Objective: Sclerosing adenosis (SA) is a benign proliferative breast disease in which the number of acinus per terminal ductus increases markedly and the stromal component compresses the glandular structures. In the presence of sclerosing adenosis, the development of breast cancer increases 1.5-2 times. Atypical epithelial proliferation, such as atypical lobular hyperplasia, atypical ductal hyperplasia, in situ ductal carcinoma (DCIS), in situ lobular carcinoma (LCIS), may be associated with sclerosing adenosis. In this study, we aimed to evaluate the pathologies associated with SA following mass excision of patients diagnosed with SA by core needle biopsy and to retrospectively review whether there is a significant radiological difference between those with or without atypia.

Materials and Methods: Between January 2016 and July 2018, patients diagnosed with SA by core needle breast biopsy were identified. Patients who did not undergo excisional procedures were excluded from the study. 39 patients which were diagnosed as SA by core needle biopsy and then the suspected areas were excised in our center were included in the study.

Results: The mean age of the patients was 43.1. Seventeen of the patients (43.6%) were presented with breast mass. Ultrasonography was performed in 37 patients (94.9%), mammography was performed in 23 (59%) and breast MRI was required in 14 (35.9%) patients. Segmental mastectomy was performed in 20 patients (51.3%) and wire-guided excision was performed in 12 patients (30.8%). Histopathological examination after mass excision revealed fibroadenoma and fibroadenomatoid changes in 27 patients (69.2%). Atypical ductal hyperplasia or flat epithelial atypia was detected in 10 (25.6%) patients. Invasive ductal carcinoma was detected in 2 (5.1%) patients and DCIS was found in 1 (2.6%) patients.

Conclusion: It is important that SA is accompanied by other proliferative lesions with atypia. It should also be kept in mind that SA may be associated with DCIS and invasive carcinoma. Therefore, even if sclerosing adenosis is suspected as a result of radiological examinations, core needle biopsy should be recommended. Furthermore, for patients who were diagnosed with sclerosing adenosis by core needle biopsy, the excision of the lesion should be recommended.

SS19-Diagnostic Value of PET/CT, MRI and Ultrasound to Assess Axillary Lymph Node Status in Patients with Invasive Breast Cancer

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Objective: Axillary lymph node (ALN) status is the most important prognostic factor for staging and overall survival. The aim of the present study is to determine effect of ultrasound (US), magnetic resonance imaging (MRI) and 18F-Fluorodeoxyglucose positron emission tomography/computed tomography (18F-FDG PET/CT) for assessment of ALN status in patients with invasive breast cancer.

Materials and Methods: One hundred and nine patients who had US, MRI and 18F-FDG PET/CT were retrospectively studied. ALN status were determined with histopathological examination after fine needle aspiration biopsy, sentinel lymph node biopsy or axillary dissection.

Results: Mean tumor and ALN diameters were 27.68±13.73 (2-80) mm and 16.00±7.14 (5-50) mm respectively. Sensitivity, specificity and accuracy of imaging methods to evaluate ALN status were 69.49%, 50% and 60.55% respectively for US, 45.76%; 78%; 60.55% respectively for MRI, and 74.58%, 38%, 57.80% respectively for 18F-FDG PET/CT. Results of Kappa measures of agreement of pathology analysis were 19.7% for US, 23% for MRI and 12.9% for 18F-FDG PET/CT.

Conclusions: Our results show that MRI is more accurate than US and 18F-FDG PET/CT for evaluation of ALN status

SS22-Comparison of the Diagnostic Value of Abbreviated and Standard Diagnostic Breast MRI Protocols in Neoadjuvant Chemotherapy Response Evaluation

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Objective: To investigate the efficacy of abbreviated breast MRI in neoadjuvant chemotherapy (NAC) response evaluation.

Methods and Materials: Breast MR images of 50 patients with locally advanced primary breast cancer who underwent standard breast MRI before and after NAC were re-evaluated retrospectively. Three experienced radiologists evaluated both abbreviated (T1W, T2W and one early phase dynamic contrast enhanced sequences) and standard protocols in consensus. Standard protocol evaluation was performed 1 month after the abbreviated protocol. Diagnostic accuracy for both protocols were compared with the histological findings after surgery as the reference standard. In histopathological analysis after NAC, the presence of ductal carcinoma in situ was evaluated as a complete response. Wilcoxon, Man-Whitney, spearman correlation tests were used in the comparisons. Tumor response evaluation was made by chi-square test.

Results: Tumor types of 50 patients were 40 (80%) invasive ductal carcinoma (IDC), 5 (10%) invasive lobular carcinoma (ILC), 3 (6%) micropapillary carcinoma, 2 (4%) both IDC and ILC. Pathologic complete response (pCR), partial response (pPR) and non-response (pNR) were detected in 11, 32 and 7 patients, respectively. Three of 11 patients diagnosed with pCR had residual in situ ductal carcinoma in final pathology. The CR, PR and NR accuracy were 5/11, 28/32, 3/7 and 4/11, 28/32, 6/7 in the abbreviated and standard protocol respectively. The maximum median tumor size after NAC is 25 mm, 14 mm (p<0.001), 19 mm (p=0.046), and in final pathology, abbreviated and standard protocol, respectively. Tumor size measurement was found to be significantly different between the two protocol (p<0.001). In the evaluation of axillary lymph node positivity, abbreviated and standard protocol was found to be compatible with pathology (p<0.0001).

Conclusion: The accuracy of abbreviated protocol is not less than standard protocol for complete response evaluation. Larger series of prospective studies are needed for the determination of application areas.

SS26-Local Lymph Node Recurrence of Breast Cancer: Long Term Results

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Objective: It is known fact that locoregional relapse is a significant risk factor for distant metastases. In breast cancer, local or regional relapses are seen between %1-10 in all patients. To search the relationship between the distinct factors in cases with regional relapses (relapse zone, relapse time, pathological features of the tumor etc.) and prognosis of the disease.

Materials and Methods: The data of the 30 breast cancer patients, who had a surgery for the disease in our center between 1994-2015 and had a regional lymph node relapse in the follow-up period were included in the study. Clinicopathological features and long term survival data were assessed retrospectively.

Results: The median age was 43 (29-74), %37 of the patients were younger than 40 age (n=11), and 19 patients (63%) were premenopausal (n=19). As pathologic stage, 90% of the tumors were TI-II and 10% was TIII-IV, whereas 43% was N0 (n=13), 30% was N1 (n=9), 20% was N2 (n=6) and %7 was N3 (n=2). The most common histological type was invasive ductal ca in 24 patients (n=30), whereas 19 patients had hormone receptor (HR) positivity (70%, n=27), and 5 patients had HER2 positivity (25%, n=20). At a median follow-up of 102 months (17-228), 19 patients had axillary relapse (%63), 7 patients had supraclavicular relapse (24%) and remaining 4 had relapses in the other regions (13%). Of those, 70% had axillary lymph node dissection (n=21) and %22 had sentinel lymph node biopsy (n=9). Adjuvant radiotherapy was given to 83% of the patients (n=25). The majority of locoregional recurrences (70%, n=21) were seen with local recurrences following mastectomy or breast conservation, whereas 9 patients had isolated locoregional recurrence. Of 8 patients with axillary recurrences, 5 had SLNB and 3 had axillary lymph node dissection, and almost all of them received radiation. The regional relapses were accompanied by distant metastases in 30% of cases. Median relapse time was 33.5 months (6-192). Of the relapses, 43% was seen in the first 24 months (n=13), 27% was seen between 25-60 months (n=8) and 30% was seen after 60 months (n=9). Hormone receptor-negative patients (n=6) were more likely to recur within the first 24 months compared to HR+ patients (n=5) (%75 vs %26%, p=0.033). Of those, 11 patients (38%) had distant organ metastases after the local relapse with a 5-year disease specific survival of 82%, whereas the 5-year disease specific survival after an axillary relapse was 93%.

Conclusion: Our results suggest that patients with isolated local regional relapses have excellent prognosis, and the relapses in the HR- patients were usually seen in the first 24 months. Since the majority of patients with isolated locoregional recurrences already received radiation and had a negative pathology for lymph nodes, there may be other biological factors for future investigation.

Keywords: Regional relapse, lymph node metastases, local relapse

SS27-Evaluation of the Association between the Degree of Contrast Enhancement and Breast Cancer in Contrast Enhanced Mammography

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Objective: Contrast enhanced spectral mammography (CESM) is a recently emerged technique, to increase the diagnostic sensitivity of breast cancer especially in patients with dense breast parenchyma. The use of CESM has increased since it is a easy modality to perform and interpret, also has low-cost when compared to MRI. There is limited studies in the literature investigating the degree of contrast enhancement of the lesions. The aim of this study was to evaluate the association between the degree of contrast enhancement of the lesions and diagnosis in CESM in patients with BI-RADS 4 and BI-RADS 5 lesions.

Materials and Methods: Between November 2014 and May 2019, CESM was performed in 128 patients who had BI-RADS 4 and 5 lesions in mammography and underwent histopathological examination. Two experienced radiologist in breast imaging, scored the degree of contrast enhancement of the lesions using a visual score between 0-3 according to the background enhancement (0: no contrast enhancement, 1: minimal, 2: moderate, 3: marked), a score of 2 and 3 was accepted as malignancy. IBM SPSS Statistics 22 programme (IBM SPSS, Turkey) was used in statistical analysis. The study was approved in our institutional scientific committee.

Results: The age of the patients was changed between 32- 80 with a median of 52±11. The 56% of the cases were benign (n=72) and 44% were malignant according to the histopathological results. The 22.7% of the patients had no contrast enhancement, 24.2% had minimal enhancement, 18.8% had moderate enhancement and 34.4 % had marked enhancement in CESM. The sensitivity of the degree of contrast enhancement in CESM was 92.9%, when the specificity was 77.8%, positive predictive value was 76.5%, negative predictive value was 93.9% and accuracy was 84.4%.

Conclusion: The main mechanism of CESM is based on the differentiation of the lesions from the surrounding parenchyma regarding early and intense enhancement pattern. The results of this study show that moderate and marked enhancement in CESM may detect the malignancy with a high sensitivity rate in BI-RADS 4 and 5 lesions. Also, the lesions which has no or minimal contrast enhancement in CESM is related with

benignity regarding with high negative predictive value rate. This study demonstrated that the degree of contrast enhancement of the lesions in CESM may be used in daily practice with easily performing a visual scale in differentiation of benignity or malignity of the lesions.

Keywords: Contrast enhanced mammography, spectral mammography, breast cancer

SS28-Increased Rate of Breast Conserving Surgery in Early Stage Breast Cancer Compared to Mastectomy by Years

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Objective: Worldwide, breast conservation has become increasingly accepted as the surgical management of breast cancer in clinical practice. In general, patients with early stage breast cancer (EBC) undergo primary surgery (breast conserving surgery or mastectomy) with or without radiation therapy. Following local treatment, adjuvant systemic therapy may be offered based on primary tumour characteristics, such as tumor size, grade, lymph node involvement, ER/PR status, and expression of HER2-receptor. Here, we are reporting the rate of breast-conserving surgery (BCS) at our centre.

Materials and Methods: A retrospective study of 728 patients who underwent breast cancer surgery at a tertiary care centre in Turkey from January 2014 to August 2019 were analysed to study the rate of BCS. All early breast cancers were offered BCS. For large operable breast cancer (LOBC) and locally advanced breast cancer (LABC), neoadjuvant chemotherapy (NACT) followed by BCS was offered to these patients who wish to conserve their breast.

Results: The mean age was 54 years. A total of 295 patients underwent BCS. Yearly, BCS rates were 37.7% in 2014, 31% in 2015, 34.5% in 2016, 46.4% in 2017, 45.4% in 2018 and 43.2% in 2019. Majority had EBC 473 of which 61.4% of T1 lesions (n=105) had BCS, and 44.6% of T2 lesions (n=134) had BCS of which 37 patients had to undergo NACT to preserve their breast whereas 100% Tis patient (n=2) had mastectomy. Seventy patients had LOBC and only 4(5.7%) patients had upfront BCS whereas 9 of them had to undergo NACT (12.8%). cT4 lesions had NACT followed by BCS in 6 patients.

Conclusion: The rates of BCS have been increasing in Turkey over the past few years. Several randomized trials documented that mastectomy is equivalent to breast-conserving therapy(lumpectomy with whole breast irradiation) with respect to survival as primary breast local treatment for the majority of women with stage 1 and stage 2 breast cancers. The majority of the women presented with EBC which makes them suitable for BCS.

Keywords: Breast conserving surgery, mastectomy, breast cancer, chemotherapy

SS35-The Results of Oncoplastic Techniques in Centrally Located Tumors of Breast Cancer Patients

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Objective: There is an obvious risk of mastectomy in tumors located in the breast center. Oncoplastic breast surgery (OMC) techniques have become popular in the treatment of breast cancer in recent times. In this study, we evaluated the first results of OMC techniques in centrally located tumors.

Materials and Methods: Patients who underwent OMC between January 2015 and July 2019 in our general surgery clinic for centrally located breast tumor were included in the study. For this study, the data of the patients in the hospital electronic registry system (Probel Inc.) were retrospectively analyzed. Factors such as breast volume, degree of ptosis, tumor-surgical margin were considered in the selection of OMC technique. Demographic data, biological characteristics of the tumor, applied OMC technique, early oncologic outcomes and complications were investigated.

Results: The median age of 32 patients included in the study was 43.5 (28-73) years. 21 patients had invasive ductal cancer, 3 had invasive lobular cancer, 3 had paget disease, 2 had medullary carcinoma, 2 had phyllodes tumor and 1 had ductal carcinoma. Oncoplastic technique: Round block in 8 cases, oncoplastic breast reduction in 7 cases, Grisotti flap in 6 cases, glandular flap and sac closure in 5 cases, primary sac closure in 3 cases, latissimus flap in 2 cases and tissue shifting technique from breast adjacent area in 1 case were applied. During the operation, reexcision was performed in 2 cases. No postoperative surgical margin positivity was detected in the last pathological examination. Postoperative complications were seroma in 2 cases and wound separation in 1 case.

Conclusion: OMC techniques can be applied to avoid mastectomy in breast center tumors. It was evaluated as an oncologically safe procedure with acceptable complications.

SS36-Efficacy of Topical Methylprednisolone in the Treatment of Idiopathic Granulomatous Mastitis (IGM)

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Objective: Idiopathic granulomatous mastitis (IGM) is a rare, chronic inflammatory disease of the breast with unknown etiology. The aim of our study was to investigate the efficacy of topical methylprednisolone in the treatment of IGM.

Materials and Methods: Sixty patients who presented with mastitis between 2015-2018 were included in the study. All patients were diagnosed as IGM by tissue examination. Ultrasonographic imaging was used as standard in the determination and follow-up of inflammatory area size. After the abscess, collection treatment, the patients were divided into two groups according to the order of admission; oral methylprednisolone treatment (Group 1) and oral + topical methylprednisolone treatment (Group 2). The numerical data obtained from the cases were analyzed using NCSS 11 package program. A $p < 0.05$ was accepted as statistically significant.

Results: At the beginning of the treatment, there was no significant difference in the size of the inflammatory area between the two groups. The mean time of treatment was 2 (1-5) months in Group 1 and 1 (1-4) months in Group 2 ($p = 0.001$). In Group 1, 4 patients underwent segmental mastectomy. In Group 2, no patient had to undergo surgical intervention. In monthly USG checks to check the size of the inflammatory area; there was no significant difference between Group 2 and Group 1 at 1 month ($p = 0.612$). A significant difference was detected between Group 2 and Group 1 at 2, 3 and 4 months ($p = 0.001$). All patients were accessed from the hospital database and patients were called for USG controls at 6 months. There was no recurrence in any of the two groups.

Conclusion: It has been found that, for non-abscess/collection IGM treatment, in addition to oral methylprednisolone, topical methylprednisolone treatment has a positive effect on the duration of treatment, reduction of the inflammatory area and reduces the need for surgical intervention.

Keywords: Idiopathic granulomatous mastitis, methylprednisolone, treatment

SS39-Analysis of Prognostic Factors in Patients with Tripple Negative Breast Cancer after Adjuvant Radiotherapy after Breast Surgery: 20-Year Follow-Up Results

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Objective: In this study, long-term follow-up results and prognostic determinants of tripple negative breast cancer patients treated with adjuvant radiotherapy (RT) according to the protocol of Dokuz Eylül Breast Tumors Group were evaluated retrospectively.

Materials and Methods: Between January 1992 and December 2005, 215 tripple negative breast cancer patients were included in the study. Ninety-nine (46%) patients underwent breast conserving surgery (BCS), and 115 (53.5%) patients underwent modified radical mastectomy (MRM). Five patients (2.3%) underwent sentinal lymph node biopsy and 208 patients (96.7%) underwent axillary dissection. 50 Gy or more radiotherapy was applied to peripheral lymphatics together with chest wall or breast in 53 patients (75.4%), and to chest wall or breast in 53 (24.6%) patients. One hundred and thirty-two (61.4%) patients received an additional dose of 10-16 Gy. One hundred and seventy-three patients (80.5%) received adjuvant or 15 (7%) received neoadjuvant chemotherapy (CT) (6 cycles of CAF - CEF, 4 cycles of AC or CMF or equivalent). The staging was done according to AJCC-2018, and the survival analyzed by Kaplan-Meier and the variables were analyzed by Log-Rank and Cox regression analysis.

Results: Patients were aged between 25-75 years and median age was 47 years. The median follow-up was 142 months. 119 (55.3%) of the patients were premenopausal. Histologically, 131 patients (60.9%) had invasive ductal carcinoma (IDC), 21 patients (9.8%) had invasive lobular carcinoma (ILC), 11 patients (5.1%) had both ILK and IDC, and 52 (24.2%) had other histopathologic types. Pathologic T stages of the patients were 4 (1.9%) pT1a, 5 (2.3%) pT1b, 52 (24.2%) pT1c, 124 (57.7%) pT2, 18 (8.4%) pT3, 7 (3.3%) pT4b, 5 (2.3%) as pT4d; N stages were staged as 82 (38.1%) pN0, 65 (30.2%) pN1, 45 (20.9%) pN2, 23 (10.7%) pN3. Distribution of patients according to stages were; stage 1; 38 patients (17.6%), stage 2; 103 patients (47.9%), stage 3; 74 patients (33.5%). Pericapsular invasion (PCI) was positive in 69 (32.1%) patients. Skin invasion was present in 13 (6%) patients and surgical margin was positive in 11 (5.1%) patients. While 67 (31.2%) of the patients had distant recurrence during follow-up, 11 (5.1%) had local recurrence. 5, 10, 15 and 20-year overall (OS) and disease-free survival (DFS) rates, respectively; 77.5%, 64.1%, 57.2%, 49.7% and 72.5%, 66.2%, 64.8%, 61.9%. In univariate analyzes, menopause status, surgery type, PCI, pT3-4 disease, pN, stage, CT scheme, distant invasion, and skin invasion were significant factors affecting prognosis

on both OS and DFS, while local spread and pT were significant for DFS. In multivariate analyzes, stage is a significant prognostic factor for OS and DFS.

Conclusion: In tripple negative breast cancer patients, stage has a significant effect on survival regardless of molecular subtype at long follow-up. Disease-free survival of our patients during median 10-year follow-up is quite good.

Keywords: Breast cancer, prognostic factors, radiotherapy

SS41-Thoracic Wall Recurrences after Mastectomy: Our Instutional Long Term Results

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Objective: Thoracic wall recurrences following mastectomy are seen relatively rare in breast cancer. Local and regional recurrences are seen about %5–10 in breast cancer. Of those, 20% to 30% of recurrences are seen with regional recurrences. The aim of this study is to investigate the clinical, pathological features and long-term survival of patients with local recurrence after mastectomy.

Materials and Methods: Between 1993 and 2015, 27 patients who were operated with a diagnosis of breast cancer at the İstanbul Medical Faculty Breast Surgery Clinic, developed recurrence in the thorax wall. Clinicopathologic and long-term survival data was obtained for 27 patients.

Results: Median age was 47 (25-79) and 63% of patients (n=17) were premenopausal. The majority of patients were found to have stage III disease (30%), whereas 30% had stage 1, and %26 had stage 2 disease. Furthermore, the majority of patients were found to have invasive ductal carcinoma as histological tumor type. Hormone receptor positivity (estrogen and/or progesterone receptor positivity) was detected in 16 patients (67%, n=24), whereas 2 patients were found to have HER-2 positivity (15%, n=13). One patient (6.7%, n=15) with hormone receptor positivity upfront was turned to be hormone receptor negative (ER/PR negative) in recurrence. At a median follow-up of 87 month (12-261), 21 patients (78%) had isolated thoracic wall recurrence, whereas 6 patients (22%) had synchronous thoracic*ional recurrence. The median recurrence time was 44 months (6-260), and 37% (n=10) of recurrences were detected in the first 2 years, whereas 22% of them (n=6) were seen between 2 and 5 years, and 41% (n=11) of them developed after 5 years. Twenty patients (74%) underwent a surgical procedure as recurrent mass excision+/- axillary dissection, and 7 patients (26%) underwent systemic treatment after tissue biopsy (core / FNAB). Hormone-positive patients (median recurrence month=89.5) were less likely to be found a recurrence compared to the hormone receptor-negative patients (median recurrence month, 89.5 vs 14.5; p=0.002). Four patients (15%) developed distant metastasis after recurrence. There were 3 deaths due to breast cancer during the follow-up period and the overall 10-year survival rate was 86.8%.

Conclusion: Our findings suggest that the majority of patients who developed local/regional relapse after mastectomy relapsed within the first five years, and HR-positive patients were less likely to recur than HR-negative patients. Therefore, triple negative patients may require more aggressive local and systemic therapies.

SS44-Is Axillary Dissection Necessary in Cases with 1 or 2 Metastatic Lymph Nodes in the Axilla in Early Breast Cancer?

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Objective: One of the most important factors that adversely affect the quality of life in patients operated for breast cancer is whether or not axillary lymph node dissection (ALND) is performed. Currently, limited surgical options are widely used in breast surgery and most unnecessary axillary dissection can be prevented by the use of sentinel lymph node (SLNB). However, there is still controversy about axillary surgery. Different studies have evaluated whether or not axillary dissection should be performed in cases with 1 or 2 metastases in SLNB in early breast cancers. . In this study, we aimed to present early results in this patient group that we did not perform ALND.

Materials and Methods: In this study, demographic characteristics, primary tumor characteristics and clinical outcomes of patients with breast cancer diagnosed between 2017 and 2018 and who had 1 or 2 metastatic lymph nodes in SLNB were evaluated retrospectively.

Results: 49 patients that underwent breast cancer surgery were enrolled in this study. The mean age was 54.1± 12.02 (23–79), the mean body mass index was 25.8±3.5 k/m² (14.7-36.7). Three patients had hypertension (HT), one patient had diabetes mellitus (DM), five patients had DM+HT, and two patients had cardiovascular diseasesThe number of SLN removed was 4.2±1.3 (2-8), while 30 patients were 1+(61.2%) and 14 patients were 2+(28.6%). Micrometastasis was detected in the second lymph node in 10 (71.4%) of 14 patients with 2+. Most patients had pT2 (n=31(70.5%)) and grade 2 (n=33(%75)) tumors. . 45 patients (91,8%) were diagnosed with invasive ductal. 25 patients (71.4%) were

estrogen receptor (ER), progesterone receptor (PR) positive and CerbB2 negative, 3 patients (6.1%) were triple negative. The mean follow-up period was 16.3±7.7 months (5-36). Axillary recurrence and distant metastasis were not detected in the early follow-up of our patients.

Conclusion: There are studies in the literature showing that axillary dissection does not provide benefit for local recurrence and overall survival in patients with one or two metastases. Although the follow-up period seems short, local recurrence and metastases can be detected in the first two years after breast cancer treatment, our results seem to be consistent with the literature and suggest that axillary dissection rates can be significantly reduced in the selected patient group.

SS46-Effect of Pretreatment Education on Anxiety in Breast Cancer Patients Undergoing Radiation Therapy

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Objective: We have assessed the effect of education on anxiety and depression scale which is given by radiation oncologists and breast cancer navigation nurse to the patients diagnosed with breast cancer during their radiotherapy treatment.

Material and Methods: In this prospective study we have recruited 15 patients undergoing radiotherapy who had surgery for breast cancer. After informed consent was taken during their first visit for radiotherapy, hospital anxiety and depression scale applied. Information regarding these topics are given: "the steps for radiotherapy", "What is simulation?", "What is the importance of deep respiratory exercise after left mastectomy?", "How can we perform deep respiratory exercise?", "What is radiotherapy?", "What are the side effects of radiotherapy?", "How can we achieve skin care during radiotherapy?", "What is lymphoedema?", "How can we perform self-examination for the breasts?". The scale was applied again after the education.

Results: The results for HADS before and after therapy are shown in Tablo 2. We used SPSS 24 and Wilcoxon test. There was significant decrease in anxiety and depression points after education according to before education (HAD – A p: 0.001; HAD-D p: 0.001). Two patients out of three who had depression point over 11 had psychiatric support.

Conclusion: Pretreatment education of the patients who underwent radiotherapy after breast cancer surgery by breast cancer navigation nurse had positive effect on their concordance with their therapy.

Keywords: Breast Cancer, radiotherapy, pretreatment education, HAD scale

SS47-Evaluation of Follow-Up Findings in Mammography and Ultrasound after Intraoperative Electron Radioteraphy and Breast Conservation Surgery

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Objective: In select cases of early breast cancer, intraoperative electron radiotherapy (IOERT) can be administered as partial breast irradiation or as boost. Radiological effects of IOERT are unclear. Aim of this study was to evaluate radiological findings, by ultrasound (US) and/or mammography, in the tumor bed after breast conservation surgery (BCS) and IOERT.

Materials and Methods: 43 breast cancer patients (stage I/II) treated between 2012 and 2018 were included and radiological data was available for 22. All patients underwent BCS. IOERT was administered as boost in 3 patients (10Gy) and primary in 19 patients (21Gy). Boost patients received whole breast irradiation after IOERT. Patients were evaluated in 2 groups according to their follow-up period (short term <2 years, long-term >2 years). Follow-up mammography and US images were retrospectively evaluated by two radiologists, experienced in radiological breast imaging. Breast parenchymal pattern, calcifications, masses, distortions and oil cysts were assessed. Minimal distortion and well defined oil cysts were classified as minor, distortion and mass-like lesions were classified as major findings.

Results: Median follow-up time was 46 months (6-70months). There were minor findings in 9 patients and major findings in 13 patients. All major findings in early follow-up period patients, partially resolved and stabilized over time. Calcifications were detected 18-48 months after therapy in 6 of the 8 patients who were followed-up for more than 2 years with mammograms. Although 3 calcifications appeared nonuniform at detection, all were typical benign. Relation of these findings to breast density was statistically evaluated. It was found that minor findings were more frequent in fatty breasts (80%) and major findings were more frequent in dense ones (p=0.015).

Conclusion: Early radiological findings in the tumor bed after IOERT may be confusing. However, they resolve and stabilize over time. Radiologists and clinicians should be aware of this fact to avoid unnecessary biopsies and further examinations.

SS48-Dosimetric Analysis and Advantages of Tangent Based Volumetric ARC Therapy with Deep Inspiration Breath Hold Using Three Dimensional Surface Tracking after Breast Conserving Surgery in Patients with Left Breast Cancer

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Objective: In this study, we aimed to determine the advantage of tangential based volumetric modulated arc therapy (TVMAT) using deep inspiratory breath hold technique (DIBH) over tangential based volumetric modulated arc therapy (TVMAT) using free breathing technique and to make dosimetric comparison.

Materials and Methods: 61 patients with left breast cancer after breast-conserving surgery were included. Breast was irradiated in 44 patients. Breast and regional lymph nodes (LN) were irradiated in 17 patients. Tomography images were taken both with breath hold and free breath. Breath-hold level was recorded by infrared reflecting marker and camera using three dimensional surface tracking by Real-time Position Management system (Varian) during the CT procedure. DIBH-TVMAT and FB-TVMAT plans were generated using mono-isocentric technique with two partial rotation arcs. The total dose prescribed was 50 Gy to the breast and lymph nodes and 60 Gy to the tumor bed. The aim of treatment plan optimization was to 95% of the planned target volume surrounded 95% or more of the target dose. Paired Sample T test was used for statistical analysis.

Results: DIBH-TVMAT and FB-TVMAT doses of 44 patients who underwent left breast RT were compared, mean heart dose was determined as 5 ± 0.1 Gy to 8.8 ± 0.2 Gy, respectively ($p < 0.0001$). Heart V4, V5, V10, V25, V30 and D25 values and mean left anterior descending artery (LAD) dose and decrease in V4, V5, V10, V25, V30, D2 and D25 values were also significant ($p < 0.0001$). Left lung V5 and V20 were found to be decreased ($p < 0.0001$). Right AC and right breast mean values were also lower ($p = 0.003$). Mean heart dose of 17 patients who underwent RT to breast and LN were 5.5 ± 0.2 to 8.9 ± 0.2 Gy, respectively. In addition, heart V4, V5, V10, V25, V30, D25 values and mean LAD dose and V25, V30, D2 and D25 values were lower ($p < 0.0001$). The decrease in left lung V5 and right lung D2 was significant ($p = 0.007$).

Conclusion: When the doses of organs at risk are evaluated, it is seen that DIBH-TVMAT can be very useful and decrease long-term complications in patients underwent left breast conserving surgery.

Keywords: Left breast cancer, tangential based volumetric modulated arc therapy, deep inspiratory breath hold, free breath

SS49-Correlation of Clinicopathological Parameters with Axillary Lymph Node Involvement

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Objective: Axillary lymph node status is an important factor in predicting prognosis in breast cancer. Sentinel lymph node biopsy (SLNB) replaces axillary lymph node dissection (ALND) in clinically negative axillary lymph nodes. However, some of the clinical and radiological axilla negative patients may have metastasis in pathological examination. In this study, we aimed to present the relationship between axillary lymph node involvement and clinicopathologic features of patients with early stage breast carcinoma.

Materials and Methods: Between October 2010 and April 2018, 321 patients diagnosed with early-stage breast carcinoma in our clinic underwent SLNB and ALND was performed in patients with macrometastasis detected in the SLNB. In this study, we retrospectively collected and evaluated the clinicopathologic data including age, tumor diameter and localization, histologic subtype, lymphovascular invasion (LVI), perineural invasion (PNI), Ki 67 ratio, molecular subtype and lymph node status. Statistical analyzes were performed with SPSS v.19.0 Software.

Results: 243 (75.7%) of the patients were diagnosed as invasive ductal carcinoma, 29 (9.03%) were invasive lobular carcinoma and 49 (15.26%) were diagnosed as other type of breast carcinoma. The mean age of the patients was 55.53 (25-91) years. The number of removed lymph nodes was 1-29, while the number of positive lymph nodes was 1-15. The lymph node positivity rate was 33.02%. There was a statistically significant relationship between lymph node positivity and tumor diameter, LVI and PNI. However, no statistically significant relationship was found between age, histological subtype, Ki 67 ratio and molecular subtype.

Conclusion: Axillary lymph node staging is an important parameter in breast cancer carcinoma treatment selection. Therefore, it is tried to predict axillary lymph node status by evaluating clinicopathologic features of tumor. In some of the studies in the literature, the main factors in lymph node positivity are tumor diameter, localization, histology, grade and LVI. However, in some other studies age, histologic grade, histological subtype, multifocality, ER, PR, HER2 and Ki67 ratio, and molecular subtype have been reported to be important in lymph

node positivity. In our study, a statistically significant correlation was found between lymph node positivity and tumor diameter, LVI and perineural invasion. In addition, patients with 40-49 age range, lobular subtype, Her2 positivity and Ki 67 ratio more than 20% had higher lymph node positivity but not statistically significant. In conclusion, we think that tumor diameter, LVI and PNI may be valuable in predicting preop lymph node involvement.

Keywords: Axillary lymph node, tumor diameter, lymphovascular invasion, perineural invasion

SS50-Comparison of Clinical Features and Treatment Results of Mix Mucinous Carcinomas and Other Atypical Carcinomas of the Breast

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Objective: There are multiple subtypes of breast cancer with different biological and pathological features and accordingly exhibit different clinical behaviors. Mucinous breast carcinoma (MBC) carcinoma represents approximately 1-6% of all malignant breast carcinoma and is divided into pure (PMBC) and mix (MMBC) subtypes. The aim of this study was to compare the treatment modalities, clinical features and prognostic characteristics of Mix Mucinous Carcinomas (MMBC) and other rare tumors of the breast.

Materials and Methods: A total of 2152 patients who were operated on for breast cancer in our clinic between 2010-2019, with pathological diagnoses of tubular, pure mucinous, mix mucinous or papillary carcinoma were enrolled in the study. Patients were divided into two groups as mix mucinous patients (Group 1) and other rare tumors (Group 2). The demographic, clinical and prognostic characteristics and treatment approaches were compared between Groups, and additionally between the subtypes of Group 2.

Results: 42 patients participated in our study. Group 1 consisted of 7 patients, and Group2 consisted of 35 patients. The subtypes in Group2 were papillary (n=21), pure mucinous (n=10) and tubular (n=4). Progesterone Receptor Positivity was found to be significantly higher in Group 2 patients than in Group 1 patients (p=0.005, p<0.05). Multicentricity rates in the tumors of the patients in Group1 were found to be statistically significantly higher than the patients in Group 2 (p=0.024, p<0.05). In subtype analysis in Group2, there were no statistically significant differences parameters in the subgroups (p>0.05). Mean survival was was 19.5+5.6 (8.5-30.5) months in Group 1 and 46.3+5.2 (36.1-56.6) months, in Group2 when evaluated separately (p: 0.002).

Conclusion: Atypical tumors of the breast are seen at a rate of 2% in our series. The prognosis of pure mucinosis (PMBC) and other atypical cancers of the breast compared to the (MMBC) is quite good.

SS51-Intracystic Papillary Carcinomas: Clinical Presentation and Our Surgical Techniques Selections

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Objective: The rate of intracystic papillary carcinomas (IPC) in breast cancers is low. Their clinical course is different and even if they reach very large masses the rate of axillary metastasis is low. In this article, we aimed to present the 6 cases of intracystic papillary carcinoma with invasive characteristics.

Materials and Methods: Six cases of invasive intracystic papillary carcinoma out of 715 breast cancer patients who were operated at the general surgery clinic of Haseki Training and Research Hospital between October 2010 and August 2019 were included in the study.

Results: 5 of the patients were female and one was male. 2 of the patient was diagnosed as bilateral one side was invasive ductal carcinoma and the other side IPC. One patient underwent emergency mastectomy and axillary curettage. The youngest patient was 34 years old and the oldest age was 82 years, an average age was 70 years. Four cases presented with blood discharge in the nipple and the others come in with a mass. The largest cyst diameter was 10 cm and the largest invasive focus was 4.5 cm. Axillary metastasis was seen in one case. There was no metastases in the other 5 cases who had SLNB. Four patients were diagnosed with IPC in the left breast and two patients in the right breast. One patient had breast conserving surgery and one patient had subcutaneous mastectomy followed by silicone prosthesis. One patient who had no pre-op malignant diagnosis had complementary mastectomy.

Conclusion: IPC is a rare breast cancer that is usually seen in the age of 70 years. It usually has no tendency to metastasize. Two of our distinctive cases were bilateral, with a young 34-year-old patient and a male patient. Emergency mastectomy was done due to unstoppable bleeding after tru cut biopsy and instability.

SS52-Evaluation of Clinicopathological Features of the Patients Who Had Breast Cancer with Neuroendocrine Features

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Objective: Breast cancer with neuroendocrine feature is thought to constitute less than 1% of all breast cancers. Although neuroendocrine markers synaptophysin and chromogranin positivity are important, the positivity rate in tumor cells varies. The most important step in the diagnosis is the exclusion of metastatic neuroendocrine tumors and small cell carcinoma. The presence of DCIS supports the diagnosis of breast cancer with primary neuroendocrine features. In this study, we aimed to present our patients who had breast cancer with neuroendocrine features in our clinic.

Materials and Methods: The data of the result of the surgeries of the patients followed up by the Medical Oncology Department of the Uludağ University Faculty of Medicine were scanned. After histopathological evaluation with immunohistochemical stains, electronic files of breast cancer cases with neuroendocrine features were reviewed retrospectively. Mean age, TNM stages, treatment characteristics, median follow-up time and survival rates were evaluated.

Results: The mean age of the 35 patients included in the study was 57.9 ± 14.3 years. All patients had surgery. Seven patients (20.0%) had mucous histology and three patients (8.6%) had solid papillary pattern. Hormone receptor was positive in all patients. Only two patients were HER2 positive. Low Ki67 expression (0-2%) was observed in 5.7% of the patients; 62.9% had moderate (2-20%); High levels of Ki67 expression were observed in 28.6% (>20%). T stage of the patients: T1 45.7%; T2 34.3%; T3 5.7%; T4 was 14.3%. Eighteen patients had negative axillary lymph nodes and the other patients were N1-3. Two patients had metastasis at the time of diagnosis. One patient had lung metastasis and the other had bone metastasis. While 37.1% of the patients did not receive chemotherapy, 9 patients received neoadjuvant therapy and 8 patients received adjuvant therapy. Three patients received adjuvant chemotherapy after neoadjuvant therapy. Ten patients received anthracycline and two patients received taxane-based treatment. Nine patients received anthracycline-taxane-based regimens. 85.7% of the patients received radiotherapy. The median follow-up was 25.8 (2.0-184.2) months. At follow-up, four patients were ex. The two-year survival rate was 91.3%.

Conclusion: Since breast cancer with neuroendocrine features is very rare, large scale and long-term studies are crucial for disease definition, frequency, prognostic factors and survival rates.

SS54-The Effect of Increasing the Number of Pathological Sections on Incidental Lesions in Macromastia Specimens

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Objective: The incidental lesions detected in reduction mammoplasty specimens performed for macromastia; can be changed according to patient's age and the number of pathological sections taken from specimens. In this study, we aimed to increase detection rate of malign and pre- malign breast lesions by increasing the number of pathological sections taken from macromastia specimens.

Materials and Methods: Between the years of 2018 and 2019, 50 patients operated for symptomatic macromastia were prospectively included to this study. All patients were preoperatively evaluated with mammography and breast ultrasonography. Patients diagnosed with breast cancer or having suspicious malignant lesions were excluded from the study. The rate of incidental proliferative lesions with atypia/without atypia and non-proliferative lesions were evaluated with at least six pathological sections taken from each reduction mammoplasty specimens. The results were compared with our previous published study, which reported retrospective analysis of the incidental lesions detected with submission of four pathological sections in mammoplasty specimens. We are presenting the preliminary first year results of our study.

Results: The mean age of patients included to this study was 46.66 ± 9.621 (26-65). The mean weight of right and left mammoplasty specimens were calculated as 941.12 ± 423.505 (250-1850) and 919.02 ± 410.279 (170-1790) gram, consecutively. Pathological evaluation of specimens revealed non- proliferative lesions in 27 patients (54%), proliferative lesions without atypia in 17 patients (34%), proliferative lesions with atypia in 1 patient (2%). There was not any breast lesions detected in 5 patients (10%). Invasive breast cancer was not detected in any of the patients. In our previous study with four pathological sections, the rate of incidental lesions were reported as non-proliferative lesions in 73%, proliferative lesions without atypia in %13.3, proliferative lesions with atypia in %1.7, and invasive carcinoma in %0.2 of patients.

Conclusion: As preliminary results, we present that with increase of pathological sections, the rate of non-proliferative lesions has decreased and proliferative lesions without atypia has increased. The rates of proliferative lesions with atypia were found to be similar. With increase in the number of patients, we believe that we will have statistically more precise results.

SS55-Correlation between P53 and Other Prognostic Factors in Invasive Breast Cancer

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Objective: Breast cancer (BC) is the most frequent cancer in the women all over the world. There are many prognostic and pathologic factors which effect the treatment decision. P53 is an important tumor suppressor which may lead to development of many cancers including sarcomas, BC, brain tumors, leukemia, and adrenocortical carcinomas. Acquiring a p53 mutation has been suggested to be an early event in breast cancer development and it is related to poor prognosis and chemo-resistance. We aimed to evaluate the correlation of p53 and the other prognostic and pathologic factors in breast cancer.

Materials and Methods: Consecutive patients who were operated in our clinic between 2013-2018 because of invasive ductal breast carcinoma were included in the study. Patients' files were recorded retrospectively. Age, tumor size, lymph node status, estrogen receptor (ER), progesterone receptor (PR), HER 2 status, Ki67 value and p 53 status were recorded. The patients who were performed neoadjuvant chemotherapy and the patients with metastatic disease were excluded from the study. The patients divided in two groups as p 53 positive (Group 1) or p53 negative (Group 2). Two groups were compared according to other parameters. The parameter was accepted statistically significant if the $p < 0.05$.

Results: 337 of 408 patients matched with the inclusion criteria of the study. All of the patients were female. 245 patients were in group 1 (72.7 %). The overall age was 57.8 ± 13.4 and 57.3 ± 12.4 years in group 1 and group 2, respectively ($p > 0.05$). Tumor size was 2.8 ± 1.4 in group 1 and 3.0 ± 1.6 in group 2 and the difference was not significant. Lymph node metastasis was present in 125 of 245 patients (51.0%) in group 1 and 42 of 92 patients (45.6%) in group 2 ($p > 0.05$). The difference between two groups according to ER, PR, and Ki67 status were not significant. The HER2 status of 5 patients were not reached in the group. 137 patients had positive HER2 in 242 patients in group 1 (56.6 %) and 34 patients had positive HER 2 status in 90 patients in group 2 (37.7%) ($p = 0.002$). 20 of 230 patients in group 1 had multifocal tumor and 2 of 89 patients in group 2 had multifocal tumor. The multifocality was different between two groups ($p = 0.02$).

Conclusion: The overexpression of p53 is more frequent in the patients with HER2 status were positive. P53 status are frequently positive in the patients with multifocal tumors.

SS57-The Relationship between KI-67 Proliferation Index and Prognostic Factors in Breast Cancer Patients over 65-Years Old Applied to Our Clinic

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Objective: Although highness of Ki-67 proliferation index in breast cancer patients is a negative factor, it cannot be used as a standard marker. There is increase in breast cancer incident over 65-years old, whereas in this patient group there is no standard treatment method. The purpose of this study is determining the relationship between Ki-67 proliferation index and prognostic factors in breast cancer patients over 65-years old.

Materials and Methods: Data of breast cancer patients over 65-years old treated in Ankara Numune Training and Education Hospital in Radiation Oncology Clinic were examined retrospectively. Ki-67 proliferation index was measured using immunohistochemically method from surgery material. Kaplan-Meier analyses were used for survival analyses, chi-square independence test was used between relationships of two variables.

Results: Case of 51 breast cancer patients over 65-years old applied to Ankara Numune Training and Education Hospital Radiation Oncology Clinic between 2012 and 2019 were examined. Average age of the patients was 70.64 (65-90). Median follow-up period was 28 months (8-87 months). Most frequent histopathologic type was invasive ductal carcinoma (82%). Stage-3 patients were 37% of the total. Most of the patients were positive hormone receptor comprising 82% of the total. 13.7% of the total was positive cerbB2. 13.7% of the total was triple negative. 43% of the patients were Gr 2. While in 37% of patients perineural invasion were determined, lymphovascular invasion was present in 41% of the total. Since Ki-67 median value of the patients was 20%, this value was used. Patients were grouped in two; above and below 20%. No statically meaningful relationship can be found between Ki-67 and stage, grade, receptor situation, positivity of cerbB2, perineural invasion, lymphovascular invasion and positivity of lymph node. 5-year overall survival rate was found to be 81.7%.

Conclusion: In our study, no statistically meaningful results were found in comparison of Ki-67 proliferation index with the determined prognostic factors.

SS58-Predictive Factors for Axillary-Only and Breast-Only Pathological Complete Response after Neoadjuvant Chemoterapy

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Objective: Pathologic complete response (pCR) is a surrogate endpoint for prognosis after neoadjuvant chemotherapy (NACT) for breast cancer. The present study aimed to identify the predictive factors of an axillary pathological complete response (Ax-pCR) and breast pathological complete response (Br-pCR) in patients who underwent neoadjuvant chemotherapy (NACT) and identification of the differences of predictive factors effecting complete response.

Materials and Methods: From February 2014 to June 2019, 508 women with breast cancer treated in our clinic and the present study included 207 (40.7%) patients who underwent NACT followed by curative surgery. We collected data on demographics, tumor characteristics including histology and subtype, axillary status, and treatment effect details. The predictive factors of Ax-pCR and Br-pCR were analyzed using a chi-square test and multivariate logistic regression models.

Results: Mean age is 50.8 (24-82) and mean diameter of tumor is 34.9mm (20-220mm). Majority of patients (91.7%) have axillary lymphadenopathy (cN+) before NACT. Seventy five patients (39.47%) had Ax-pCR and 50 patients (24.1%) had Br-pCR. We achieved pathologic complete response (breast and axillary) on 42 (19.8%) patients. Age is not a predictive factor on Br-pCR and Ax-pCR. As expected, Ki67 status correlated with pCR. From 41 of 50 patients which has Br-pCR have no metastatic lymph node on specimen ($p < 0.01$). Together with this 37 of 75 Ax-pCR patients have Br-pCR (49.3%) that shows that the correlation between Ax-pCR and Br-pCR. We achieved Br-pCR on T1 tumors easily ($p = 0.05$) but we couldn't feel the advantage of this on Ax-pCR ($p = 0.9$). Among cN+ participants The rates of ypN0 in patients with hormone receptor positive (HR+)/HER2-, HR+/HER2+, HR-/HER2+, and triple-negative (TN) breast cancer were 23.9% (21/88), 40.4% (19/47), 64% (16/25), and 67.9% (19/28), respectively ($p < 0.001$). Molecular subtypes, clinical stage and pathologic complete response of the breast tumor (Br-pCR) correlated with ypN0 after full-course NACT ($p < 0.05$). Highest benefit group from NACT are triple negative tumors. Despite Luminal A tumors are the lowest ratio of pCR (8.4%) we achieved 24% Ax-pCR. We realized that Luminal status have more influence on Ax-pCR ($p < 0.01$) than Br-pCR ($p = 0.02$). Extracapsular lymph node invasion on pathologic specimen also predictive factor for Br-pCR (OR=0.285 $p = 0.04$)

Conclusion: Factors effecting on Ax-pCR and Br-pCR are similar except cT status. NACT's 24% Ax-pCR success on Luminal A tumors offers an alternative to avoid axillary surgery. At the same time detecting extracapsular lymph node invasion on preoperative ultrasonographic imaging may helpful to decide which patients will benefit less from NACT.

SS59-Analysis of PIWIL1, PIWIL2, DICER1 and DDX-4 Gene Expression in Invasive Ductal Carcinoma

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Breast cancer, which basically is the unchecked proliferation of the epithelial cells covering the ductus and the lobules of the breast, is the most common form of cancer in women and ranks second after lung cancer among total deaths from that disease. As all other carcinomas, mammary cancer results from the progressive accumulation of genetic anomalies that include point mutations, chromosomal amplifications, deletions, reorganizations, translocations and duplications of the genes responsible for the healthy growth and development of mammary cells. Familial breast cancer accounts for 20% to 30% of all breast cancers. BRCA1 and BRCA2 mutations cause approximately half of all hereditary cancers of the breast. Outside of those, several genes exist that have been associated positively with breast cancer. This study examines the expressions of the PIWIL-2, PIWIL-1, DICER-1 and DDX-4 genes in the Invasive Ductal Carcinoma of the breast. As predicted, PIWIL-2 and DICER expressions were found to be significantly higher compared to normal tissues. PIWIL-1 expression on the other hand, was recorded at borderline levels of significance. The expression of DICER-1, a gene responsible for the formation and maturation of miRNAs, revealed no significant difference. It was concluded that the increased expression of PIWIL-2 and DDX-4 in breast cancer cases that is not visible in normal tissue enables its use as a marker in the diagnosis and treatment of mammary cancer and the post-therapy follow up of the disease. It appears to be more informative to study the specific miRNAs of the gene rather than its expression in order to discern the function of the DICER-1 gene in breast cancer.

Keywords: Breast Cancer, invasive ductal carcinoma, PIWIL-1, PIWIL-2, DICER-1, DDX-4, real-time PCR

SS60-The Pathologic Differences of Multifocal Breast Cancer and Unifocal Breast Cancer

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Objective: Multifocal breast cancer (MBC), generally defined as the presence of multiple invasive tumour foci in the same quadrant of the breast, has a wide-ranged incidence varying from 6% to 77%, depending on the definition and method of diagnosis. Multifocal disease is more often seen in lobular carcinomas and has been associated with an increased incidence of lymph-node involvement, poor differentiation grade, HER2 positivity and lymphovascular invasion as compared to unifocal tumours. We aimed to evaluate the specifics of the multifocal invasive ductal breast cancer.

Materials and Methods: Consecutive patients who were operated in our clinic between 2013-2018 because of invasive ductal breast carcinoma were included in the study. The patients with multifocal tumors were in group 1 and the patients with unifocal tumors were in group 2. Two groups were compared according to age, tumor size, lymph node status, estrogen receptor (ER), progesterone receptor (PR), HER2, Ki67, and p53 status. The parameter is accepted significant if the $p < 0.05$.

Results: 360 patients were included in the study. Multifocal tumors were detected in 27 patients (7.5%). The overall ages were 53.8 ± 13.8 and 58.4 ± 13.1 in group 1 and group 2, respectively ($p > 0.05$). Tumor size was 2.1 ± 1.4 cm in group 1 and 3.1 ± 1.9 cm in group 2 ($p > 0.05$). Lymph node metastasis was detected in 19 of 27 patients in group 1 (70.3%) and 159 of 333 patients (47.7 %) in group 2 had lymph node metastasis ($p = 0.019$). There were no statistically difference according to ER, PR, and HER2 status. P53 was positive in 23 patients (88.4%) in Group 1 and it was positive in 224 patients (64.3%) in Group 2 ($p = 0.028$). Ki67 value was 8.8 ± 9.5 in Group 1 and 19.6 ± 22.2 in Group 2 (0.001).

Conclusion: The prognostic parameters as p53 and Ki67 of the multifocal breast cancer are worse than unifocal breast cancer. Lymph node metastasis should be evaluated more carefully in multifocal tumors.

SS61-Although Mastectomy Is Still Preferred in Breast Cancer in Men, Axillary Curettage after SLNB May Not Be Performed

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Objective: We aimed to share the male breast cancer (MBC) patients who are treated in our clinic, the clinical characteristics of these cases and our preferred surgical techniques with new breast cancer treatment approaches.

Materials and Methods: The records of 20 male patients who were examined and treated in our clinic between January 2005 and July 2019 were analyzed. Patient age, the breast that the cancer developed from, tumor stage, histopathological characteristics, genetic features, adjuvant treatments and survival times were analyzed.

Results: The patients were between the ages of 40-82, with an average of 62. 14 patients had the tumor in their left breast, 4 patients in their right breast and for 2 patients the tumors were bilateral. According to AJCC 2010 staging, 4 patients were stage 1, 6 patients were stage 2, 5 patients were stage 3A, 3 patients were stage 3B, and 2 patients were stage 3C. All of our patients had invasive ductal carcinoma. For one of the bilateral patients the right breast had an invasive carcinoma while the left breast was diagnosed with intracystic papillary carcinoma. A total of 8 patients underwent sentinel lymph node biopsy and Axillary curettage was not performed in 4 patients. A conservative surgery was performed on one patient with non-malignant pre-operative diagnosis. Adjuvant chemotherapy and radiotherapy were given to the patients who had modified radical mastectomy. The median survival time was 46 (12-108) months.

Conclusion: Male breast cancers show similar clinical, histopathological and prognostic characteristics to woman breast cancers and they should be treated with the same principles. However males only come to the clinic when they notice the mass and this causes delays in diagnosis and treatment. Due to the increasing awareness of breast cancer in recent years, early diagnosis and treatment is possible. The prognosis seems to be good in male breast cancer if it is diagnosed at an early stage and treated appropriately.

SS64-The Effect of Birth, Breastfeeding History and Breastfeeding Exposure on Clinical and Pathological Characteristics of Breast Cancer Patients

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Objective: We aimed to determine the relationship between histopathological features of breast cancer and pregnancy or breastfeeding history in the Turkish patient population.

Materials and Methods: A questionnaire was applied to the patients with breast cancer who came to Istanbul Oncology Institute Medical Oncology Outpatients Clinic between 2018 - 2019 and accepted to participate in the study. The age, the number of births at the time of diagnosis,

the age of the children and the duration of breastfeeding were questioned. Clinical data such as menopause status, height and weight at the time of diagnosis, clinical and histopathological features of the tumor, stage of the disease at the time of diagnosis were recorded. Statistical analyzes were performed using SPSS 21.0 program and $p < 0.05$ was considered significant.

Results: A total of 828 patients were included in the study. In the whole group, the birth rate was 89.5% and the rate of breastfeeding of parous women was 94.7%. For statistical analysis, cumulative and longest period of breastfeeding a child were evaluated separately. The total duration of breastfeeding was median 24 months (range 0 to 174) and the longest period of breastfeeding for a child was median 16 months (range 0 to 60). The median age at diagnosis was 47 years for parous women and 42 years for those who are non-parous. Non-parous women with breast cancer was diagnosed at an earlier age which was statistically significant ($p < 0.001$). Similarly, those who delivered once, were diagnosed at an earlier age to those who delivered 2 or more ($p < 0.001$). Patients were divided into groups according to hormone and Her 2 receptor status. The number of hormone receptor positive patients was 615 (74.3%), the number of positive patients was 194 (23.4%), and the number of triple negative patients was 90 (10.9). There was no correlation between the presence of birth and breastfeeding, histological subtype of tumor, ER status, HER2 status and history of breastfeeding and delivery. The relationship between breastfeeding time and time after breastfeeding, stage and histological subtype was evaluated by non-parametric tests. However, there was no correlation between stage and histological type and breastfeeding exposure.

Conclusion: Breast cancer is seen at a later age in patients who have had 2 or more births than those who have never given birth and have had a single birth. The presence of birth and breastfeeding had no effect on the histological features of the tumor.

SS65-Effect of Neoadjuvant Hormonotherapy on Pathological Complete Response Rates

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Objective: For locally advanced breast cancer (LABC) patients, neoadjuvant hormonal therapy (NHT) can be administered as primary treatment or simultaneously with neoadjuvant chemotherapy (NCT). Various publications emphasized that this approach may increase pathologic complete response (pCR) rates. We aim to assess the pCR rates of our patients that NHT was administered.

Materials and Methods: Between May 2017 and May 2019, 32 patients with hormone receptor positive LABC patients who received NHT±NCT were assessed. Patients' demographics, surgical and histopathologic data were analysed for pCR rates. A p-value of < 0.05 was considered as significant.

Results: Median age of patients were 50 (28-74) and 15 (47%) were > 50 . Clinically 10 (31%) patients were stage IIB and 22 (69%) were stage III (A,B,C). All of the patients were clinically node positive. Six (19%) patients were luminal-A, 26 (81%) were luminal-B and 5 of them were also HER2+. Four (12.5%) patients received only NHT and 28 (87.5%) received NHT+NCT. Of the 32 patients, 9 (28%) had breast conserving surgery and 16 (72%) had mastectomy. Eight (25%) patients had pCR in the breast, 11 (34%) had pCR in the axilla, and 7 (22%) had both in the breast and axilla. There were no statistically significant difference for patients with pCR and without pCR in means of demographics, neoadjuvant treatment options, and histopathological data. Although pCR rate was higher for luminal-B group (luminal-B 27% vs. luminal-A 17%), there were not enough cases to have a significant difference at this point of the study.

Conclusion: NHT can be used solely or simultaneously with NCT for hormone positive patients. Specifically for HER2(-) luminal-B patients, pCR rates were slightly higher than published data when compared with patients that received only NCT. To assess the effect of NHT on survival rates and local recurrences, prospective randomised studies with long term follow-up is needed.

SS66-Classical Massage Prevents Chemotherapy Induced Peripheral Neuropathy in Breast Cancer Patients Receiving Paclitaxel: An Assessor-Blinded Randomized Controlled Study

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Objective: The aim of this study was to determine the effects of classical massage on chemotherapy induced peripheral neuropathy (CIPN) and the quality of life (QOL) in breast cancer patients receiving adjuvant paclitaxel.

Materials and Methods: In this assessor-blinded randomized controlled trial, a total of 40 female breast cancer patients receiving adjuvant paclitaxel were randomly allocated to the classical massage group (CMG) (n=19) or the control group (CG) (n=21). Classical massage was applied to the patients in the CMG before 30 minutes each paclitaxel infusion for a totally of 12 sessions during 12

weeks. Participants in the CG did not receive any intervention except for usual care during the study period. Self-Leeds Assessment of Neuropathic Symptoms and Sign Scale (S-LANSS) was used to detect presence of peripheral neuropathic pain, and European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire for Chemotherapy-Induced Peripheral Neuropathy (EORTC QLQ CIPN20) was used to assess QOL. Presence of peripheral neuropathic pain and QOL were assessed at baseline and weeks 4, 8, 12, and 16. Nerve conduction studies (NCS) findings were also recorded by a neurologist at baseline and week 12 via an electromyography (EMG) device.

Results: The peripheral neuropathic pain was significantly lower in the CMG compared to the CG at week 12 ($p<0.05$). The sensory and motor sub-scale scores of the QOL measure showed statistically significant differences over time in favor of the CMG ($p<0.05$). Sensory action potential amplitude of the median nerve was significantly higher and the tibial nerve latency was significantly shorter in the CMG compared to the CG at week 12.

Conclusion: In conclusion, classical massage, applied once a week concurrently with adjuvant paclitaxel for 12 weeks, prevented chemotherapy-induced peripheral neuropathic pain, improved the QOL, and showed beneficial effects on the NCS findings. Based on the study findings, classical massage is recommended to use in clinical practice to prevent CIPN symptoms and improve QOL.

SS67-The Prediction of Pathologic Response to Neoadjuvant Chemotherapy in Breast Cancer Patients: Ultrasonography Versus 18F-FDG PET/CT

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Objective: In the era of neoadjuvant chemotherapy (NAC), the prediction of pathologic response is a major challenge with the potential to modify surgical approach. The aim of the present study was to evaluate the precision of ultrasonography (US) and 18F-FDG-PET/CT for predicting pathologic complete response ($ypCR=ypT0$, $ypN0$) after NAC.

Materials and Methods: A single-institution, retrospective review of a prospectively maintained database was analyzed to identify breast cancer patients treated with NAC. The study included 253 invasive breast cancer patients treated with NAC followed by standard breast and axillary nodal surgery. US and 18F-FDG PET/CT evaluation was done before and after NAC with documentation of clinical complete response. All US studies were interpreted, as “normal” according to the absence of specific characteristics shown to be commonly associated with metastatic involvement both at diagnosis and at the date of operation. 18F-FDG PET/CT scans were termed as negative or positive due to the standardized uptake value.

Results: 102 patients (40.3%) achieved pCR and all of whom had a corresponding clinical complete response. Among 134 patients with clinical negative axilla and initial nodal US demonstrating N0 disease, 41.8% had a breast pCR and all of these cases showed no evidence of axillary lymph node metastases after NAC. For 119 patients with initially nod positive disease, 88.2% patients with a breast pCR and 32.3% patients without breast pCR had axillary N0 disease after NAC. Overall sensitivity, specificity, PPV and NPV for prediction of pCR after NAC was found to be 90%, 92%, 90%, 76% for US and 89%, 84%, 81%, 75% for 18F-FDG-PET/CT, respectively. The PPV for predicting axillary status using US alone was 66.1% and for 18 FDG-PET-CT was 55%. Overall accuracy for pCR was found to be 82.6% for US and 78.6% for 18-FDG- PET/CT. The presence of in situ carcinoma was found to be the only significant factor associated with false negative US for pCR. Micrometastatic disease, the size and number of metastatic nodes were significantly associated with false negative PET/CT results for axillary disease.

Conclusion: Breast pCR is highly correlated with nodal status after NAC. US is a beneficial tool with the potential of accurate prediction of pCR in up to 80% of patients following NAC. Nevertheless, in cases of rest in situ carcinoma the accuracy of US should be interrogated cautiously. Moreover, in terms of axillary status neither US, nor 18-FDG-PET-CT is highly capable of predicting N0 disease after NAC.

SS70-Clinicopathologic Factors Related with Local Recurrence in Patients Treated for in Situ Breast Cancer

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Objective: The aim of our study is to detect factors related with local recurrence in patients treated for in situ breast cancer.

Materials and Methods: The patients treated with the diagnosis of DCIS between 1998 and 2018 in our breast center included the study. Kaplan-Meier method and Cox regression was used for statistical analyses. Statistical analyses was performed with SPSS 22.0

Results: Median age was 49 (28-82). Median follow-up 83 (12-244). Thirtyfive patients underwent mastectomy whilst 233 breast conserving surgery. One hundred seventy six patients underwent sentinel lymph node biopsy, 9 patients axillary dissection. No axillary surgery for 53 patients. One hundred ninety three patients underwent radiation therapy following surgery and 169 patients got hormonal therapy. Median surgical margin width was 10 (0-25) mm. During our follow up 11 patients developed local recurrence. Three of them was DCIS, 8 were invasive cancer. Contralateral breast cancer occurred in 4 patients. Two patients were lost due to reasons not related with breast cancer. Five years disease free survival was 97%, 10 years disease free survival was 91%. Five years local recurrence free survival was 99%, 10 years local recurrence free survival was 93%. In multivariate analyses age at diagnosis (≤ 40 vs >40) ($p=0.004$, HR: 7.1; 95% CI: 1.85-27.2), surgical margin width (both ≤ 2 mm vs >2 mm and ≤ 3 mm vs >3 mm) ($p=0.01$, HR: 5.4; 95% CI: 1.5-19.5, $p=0.03$, HR: 4.1; 95% CI: 1.14-15.1 respectively) and tumor size ($p=0.005$, HR: 1.033; 95% CI: 1.01-1.05) were significantly related with local recurrence. In multivariate analyses tumor size ($p=0.029$, HR: 1.033; 95% CI: 1.003-1.006) and margin width (both ≤ 2 mm vs >2 mm and ≤ 3 mm vs >3 mm) ($p=0.003$, HR: 10.24; 95% CI: 2.1-48.3, $p=0.01$, HR: 7.6; 95% CI: 1.61-35.7 respectively) detected as significantly related with local recurrence.

Conclusion: In our study tumor size and surgical margin width were detected as independent factors significantly related with local recurrence. ≤ 3 mm surgical margin width was found to have an independent effect on local recurrence together with ≤ 2 mm surgical margin accepted in the current literature.

SS75-Differential Expression of Novel Immune Checkpoint Receptors Expressed on Tumor-Infiltrating Lymphocytes (TIL) in Patients with Early Breast Cancer

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Objective: High expression of immune checkpoint receptors in tumor microenvironment reduces antitumor immunity and cause immune evasion of tumor cells. In recent years, immunotherapy trials using PD-1 or PDL-1 inhibitors in advanced triple negative (TN) breast cancer evolved very rapidly. The differential expression of novel immune checkpoint receptors such as TIM-3, LAG-3 and TIGIT in addition to PD-1, and CTLA-4 on tumor infiltrating lymphocytes (TIL) in patients with early breast cancer was investigated.

Material and Methods: TIL were isolated by using a Tumor Dissociation Kit from fresh tumoral tissue. Flow-cytometric analyses were performed by using CD8, CD16, CD56, PD-1, CTLA-4, TIM-3, LAG-3 and TIGIT specific monoclonal antibodies on isolated TIL. Correlations were estimated between biological and clinical characteristics of tumors and demographic features of patients and flow cytometric findings.

Results: Median age was 47 (range 28-68). There were 7 patients (35%) with HER2+ or triple negative tumors, whereas 13 patients (65%) had HER2 (-) luminal cancers. Our findings showed that patients younger than 45 years were more likely to express high levels of CTLA-4 ($p=0.013$) and TIGIT ($p=0.007$) on CD56+ natural killer (NK) cells and TIM-3 ($p=0.043$) on CD16+ lymphocytes, whereas the other high expressions including LAG-3 ($p=0.08$) and TIM-3 ($p=0.06$) on CD56+NK cells did not reach the statistical significance. Furthermore, patients with high Ki-67 proliferation index $>35\%$ were found to express higher CTLA-4 ($p=0.011$) on CD16+ lymphocytes. Patients with Stage II disease expressed higher levels of PD-1 ($p=0.018$) and LAG-3 ($p=0.04$) on CD8+ cytotoxic T lymphocytes than patients with Stage I disease. Similarly, patients with lymph node metastasis had higher TIGIT ($p=0.04$) and PD-1 ($p=0.05$) levels on CD16+ and CD56+ lymphocytes, respectively. No other significant associations could be found between immune check receptors and other parameters.

Conclusion: Our results suggest TIL in patients with more advanced stages and younger than 45 years old are more likely to express higher levels of immune checkpoint receptors such as LAG-3, TIM-3, CTLA-4, TIGIT and PD-1. Interestingly, no difference could be found in immune checkpoint receptor expressions in TIL between patients with luminal and TN or HER2+, that would justify immunotherapeutical approaches in selected luminal breast cancers in future trials.

SS76-Can We Predict Axillary Tumor Burden in Patients with Breast Cancer by Using [18F] FDG PET/CT?

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Objective: 18F-fluorodeoxyglucose positron emission tomography and computed tomography (18F-FDG PET/CT) have been used to detect regional and systemic metastases in patients with breast cancer (BC) for decades, but its value to show tumor burden in the axilla is controversial. The primary aim of our study was to investigate the relationship between axillary maximum standardized uptake value (SUVmax) and the number of metastatic lymph nodes in early stage breast cancer (ESBC) patients. Secondly, we planned to determine a reasonable cut-off value by using preoperative 18F-FDG PET/CT to avoid axillary treatment.

Materials and Methods: All patients with clinical ESBC and a preoperative 18F-FDG PET/CT, who were treated in our center were enrolled in the study. Two-hundred and eighty-three patients were classified according to their number of metastatic axillary lymph nodes and analyzed according to their clinical and immunohistopathological characteristics. The mean axillary SUVmax value of all patients was evaluated according to the metastatic lymph node number and breast cancer subtypes.

Results: The patients with increasing axillary SUVmax values had significantly more than two metastatic lymph nodes especially in luminal-type and triple-negative BC patients ($p < 0.05$). The optimal cut-off value of SUVmax to predict the metastatic axillary lymph node burden was determined to be 1.75 by means of the receiver operating characteristics curve (ROC) with an area under the curve of 0.827 (95%, CI: 0.779 to 0.875; sensitivity: 82.4%, specificity: 71.3%). These allowed us to subcategorize the patients as low (≤ 1.75) and high (> 1.75) SUVmax groups. When the axillary SUVmax values were less than 1.75, patients with luminal molecular subtypes had significantly less than two metastatic axillary lymph nodes ($p < 0.001$).

Conclusion: This study obviously shows that patients with an axillary SUVmax value less than 1.75, especially in luminal-type breast cancer patients, have less than two metastatic axillary lymph nodes. In this subgroup of BC patients more aggressive approaches such as axillary lymph node dissection and/or radiotherapy could be avoided.

SS77-Preoperative Plasma Level of Matrix Metalloproteinase and Their Inhibitors in Breast Cancer Patients

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Objective: Alteration of the matrix metalloproteinase (MMP) and their tissue inhibitor (TIMP) plasma level in various cancers can result in tumor invasion, metastasis and poor prognosis. However, there is limited evidence regarding the effect of chemotherapy and surgical interventions on MMPs and TIMPs plasma level in cancer patients. For this purpose, the aim of this study was to investigate circulating pre- and postoperative MMP and TIMP levels in patients with breast cancer.

Materials and Methods: Blood plasma samples were obtained from 96 breast cancer patients who were surgically treated at General Surgery Clinics between 2015-2017 and 35 healthy controls. Circulating pre- and postoperative MMP-2, MMP-9, TIMP-1 and TIMP-2 levels were assessed by enzyme linked immunoassay (ELISA). In this retrospective study, we also statistically analyzed the association the MMPs and TIMPs level with clinical data of patients (age, stage, postoperative pathology, lymphovascular invasion, axillary metastasis, molecular subtypes, response to chemotherapy and surgery).

Results: MMP2 ($p = 0.01$) MMP9 ($p = 0.001$) and TIMP2 ($p = 0.002$) were had statistically significant differences serum levels when the mean values in the patient and control groups were compared. A significant correlation was found between increased MMP2 with ER ($p = 0.02$) PR negativity ($p = 0.046$), metastatic lymph node positivity ($p = 0.041$) and complete response to chemotherapy ($p = 0.037$). MMP-9 levels were increased in with the progression of clinical stage ($p = 0.047$). Although these markers showed some differences with chemotherapy and surgery treatment, but these differences were not significant.

Conclusion: Serum MMP2 levels were higher in patients with complete response to chemotherapy. It was thought to be higher in patients with aggressive tumor biology. On the other hand MMP2 may be an important marker for predicting patients to respond to neoadjuvant chemotherapy.

MMP9 values may be significant in showing advanced clinical stage. However, further studies with larger samples are needed to explore the association between surgical interventions and the plasma level of MMP-2, MMP-9, TIMP-1 and TIMP-2.

Keywords: Breast cancer, matrix metalloproteinase, tissue inhibitor of metalloproteinase, ELISA

SS78-The Effect of CYP2D6 Polymorphisms on Treatment Response in Breast Cancer Patients Receiving Tamoxifen Treatment

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Objective: Tamoxifen, is one of the principal treatments for ER- positive; genetic polymorphisms of drug metabolisms by cytochrome P450 could affect on tamoxifen response. Poor metabolizer genotypes may not fully convert tamoxifen to its active metabolite endoxifen and thus have less exposure to anti-estrogen therapy. This study due to the importance of CYP2D6*3, CYP2D6*4, CYP2D6*6 alleles with poor metabolizer feature and also lack of information about distribution of these alleles in Turkish population, was performed.

Materials and Methods: Ninety patients aged 23-68 years with hormone-sensitive breast carcinoma taking adjuvant tamoxifen, who had presented to Bursa Uludag University Hospital in Turkey, were prospectively enrolled into the study during the years 2014-2019 and followed up until five years. Genomic DNA was extracted from the peripheral blood of 90 patients with hormone sensitive breast cancer. The genotype analysis was performed by Real-time polymerase chain reaction (RT-PCR) with TaqMan® Universal PCR Master Mix and TaqMan® Drug Metabolism Genotyping Assay Mix (CYP2D6*3, CYP2D6*4 and CYP2D6*6) with StepOnePlus® RT-PCR and, were also confirmed by DNA sequence analysis.

Results: Genotyping of patients showed, the CYP2D6*3, CYP2D6*4 and CYP2D6*6 alleles with phenotype of poor metabolizer occurred in 16 (17.8%), 13 (14.4%) and 15 (16.7%) patients, respectively. In this study the recurrence was seen in 20 (22.2%) patients, who were received 5-year adjuvant tamoxifen therapy. Among patients with recurrence, 8 (8.9%) patients were positive for poor metabolizer allele CYP2D6.

Conclusion: Findings of genotyping CYP2D6 alleles may provide the basic information on which individualized, optimal tamoxifen therapeutic regimens for patients with hormone receptor-positive breast.

Keywords: Tamoxifen, breast cancer, ER-positive, CYP2D6

SS79-Early Results of Patients with Neoadjuvant Chemotherapy (NAC) and Neoadjuvant Radiotherapy (NART) in the Treatment of Locally Advanced Breast Cancer (LABC)

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Objective: In breast cancer treatment, radiotherapy (RT) is usually performed after surgery in patients who receiving neoadjuvant chemotherapy but in some selected cases neoadjuvant radiotherapy can be applied. To evaluate the response of the preoperative RT in patients receiving NAC and the development of postoperative complications.

Materials and Methods: This study was planned as a prospective study. Between 2017-2019, 37 patients diagnosed with LABC who had a clinical partial response (imaging±Pet-CT) after NAC (4AC/EC+12 Paclitaxel±Trastuzumab) ± Hormonotherapy, had received standard dose RT on the breast and peripheral lymphatics (axilla + supraclavicular and mamma interna) before the surgery. Surgical treatment was performed in 6th week after the end of RT.

Results: The median age of the patients was 50 (28-63), 62% (n=26) of patients had 25 and above body mass index (BMI). Clinically, 49% (n=18) of patients were stage 2B, 51% (n=19) of them were stage 3, and all of them were N (+). After NAC + NART, 7 cases (18.9%) had pathological complete response was detected in breast, 14 cases (37.8%) had pathological complete response was detected in axillary. Breast and axillary treatment responses were analysed according to molecular subtypes. Luminal-A (n=7) 29%, luminal-B (n=19) 5% and Her2/TNBC (n=11) 36% had pathological complete response in breast, Luminal-B %37 and Her2/TNBC subgroup 64% had pathological complete response was detected in axilla, but in luminal-A had not pathological complete response in axilla. After surgical treatment, in 11 cases (30%) developed severe (inpatient treatment) (n=8; 22%) and mild (outpatient oral antibiotic therapy required) (n=3; 8%) infection. It was observed that the BMI level of patients who had infection was over 25 (p=0.036). In 50% (p=0.030) of the cases axillary lymph node dissection (n=16), in 27% of

the cases mastectomy (n=11), in 33% of the cases who underwent mastectomy + implant (n=12), in 29% of the patients who underwent breast conserving surgery (n=14) had developed infection (p=0.996). It was observed that implant loss due to necrosis of skin (p=0.996) in 2 (16%) in 12 cases with silicon implantation which developing infection.

Conclusion: In this study, neoadjuvant RT after neoadjuvant chemotherapy increased the rate of complete pathological response of the patients diagnosed with LABC especially in the luminal-A group. It was observed that addition of RT to NAC

SS80-Efficacy of Ozone Therapy as a Novel Potential Therapeutic Approach in Severe Granulomatous Mastitis

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Objective: Idiopathic granulomatous mastitis (IGM) is known as a chronic benign disorder that can mimic breast cancer. Even though the exact etiology of IGM is unknown, autoimmunity may play a major role in pathogenesis. Since the therapeutic potential of ozone therapy has previously shown in rheumatic diseases, this study aimed to assess the clinical efficacy of ozone therapy in severe idiopathic granulomatous mastitis.

Materials and Methods: Two cohorts (cohort A and cohort B, N=43) were included into the study treated by 2 different treatment protocols between August 2017 and April 2019. All patients had biopsy-verified granulomatous mastitis with negative microbiological cultures or RT-PCR for tuberculosis. Patients resistant to steroid therapy or suffering from steroid complications (n=29, 67.4%) or who do not desire a steroid therapy were included into the study. Clinical response was evaluated by physical exam and/or radiology including ultrasound or magnetic resonance imaging before and after the therapy.

Results: Median age was 33 (range, 24-55). Treatment was made by weekly major ozone Autohemotherapy (AHT) alone by using a high dose ozone (70 gamma) in patients in cohort A (n=34). Nevertheless, cohort B included 9 patients in 2019 treated with consecutive alternating AHT or ozone rectal insufflation by using lower doses ozone between 15-30 gamma for AHT and 25-50 gamma for rectal administration twice a week for a month, and weekly for the following month followed by maintenance therapy sessions. Local ozone injections within the affected gland were applied to patients weekly for at least 2 months until full recovery in both cohorts. Significant clinical differences were obtained after ozone therapy such as softening of inflamed breast tissue, reduction and totally disappearance of discharge from cutaneous fistulas in all patients. Almost half of the patients (51%, n=22) had magnetic resonance imaging that showed a recovery of findings associated with inflammation in the breast. The complete response rate after 4 month-therapy was estimated as 41% (n=14) in cohort A with high dose ozone therapy, and 55.6% (n=5) in cohort B with low dose ozone therapy, whereas the remaining patients showed a partial response in both groups. Only one patient treated with rectal ozone insufflation in cohort B once had abdominal pain and hypotension that disappeared with a quick recovery at the same day after the session.

Conclusion: Our results suggest that ozone therapy has been shown to be as effective, tolerable and safe especially for patients with steroid-resistance granulomatous mastitis. Furthermore, treatment by using low dose ozone autohemotransfusion or rectal ozone insufflation seems to be at least as effective as high dose ozone therapy as a promising potential novel therapeutic approach in severe IGM.

SS81-Intraoperative Ultrasonography Guided Oncoplastic Surgery: Margin Assessment and Selective Cavity Sampling

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Objective: Oncoplastic surgery (OPS) is the preferred choice of treatment for breast cancer, currently. The major aims is to achieve negative margins with the most acceptable cosmetic and oncologic outcome. The presence or absence of residual invasive cancer is one of the strongest prognostic factors for risk of recurrence and the margin status is the other. Due to the excess tissue rearrangement, to accurately predict margin status intraoperatively is a must to avoid mastectomy during OPS which is a challenge for surgeon. The aim of the presented study is to evaluate the efficacy of continuous intraoperative ultrasound guided OPS (IUG-OPS) in terms of margin status and re-excision rate. The relationship between intraoperative assessment of gross macroscopic and ultrasonographic margins and cavity shavings results, were also analyzed.

Materials and Methods: Between 2015 and 2018, IUG-OPS were performed to 118 patients. OPS procedures were decided according to patient and tumor characteristics. Tumor localization, breast/tumor volume ratio, glandular density and patient preferences were the major factors to make selection. All of the patients underwent level I or II OPS with regards to the abovementioned factors. Surgeon performed continuous peroperative real-time sonographic margin assessment during resection, macroscopic evaluation, specimen US including sonographic analysis of six faces of each specimen, and shaved cavity margins for permanent pathologic assessment were the standard steps of our methodology.

Results: The sensitivity of intraoperative ultrasound localization of the tumor was 100%. Patients were on average 49 years old (range, 34- 72). There was no difference with respect to patient characteristics including age, menopausal status, personal-family history, oral contraceptive usage, body mass index and tumor localization. Tumor free margins were obtained by means of IUG-OPS in 95% of margins evaluated sonographically. Moreover, the involved margins were correctly identified by the surgeon via specimen sonography in %50 of the cases which was confirmed by cavity shaving results. No frozen section analysis was performed and macroscopic evaluation of the specimen predicted nothing significant. According to permanent section analysis of the resected specimens and cavity shavings, no further intervention was required due to margin positivity. IUG-OPS with real-time specimen sonography were unable to predict involved margins in cases confirmed to be invasive lobular carcinoma and ductal carcinoma in situ without evidence of residual cancer on pathological examination of cavity shavings. Accordingly, neither a second intervention, nor mastectomy required.

Conclusion: Continuous intraoperative ultrasound with specimen sonography and cavity scan after excision is an invaluable and effective modality to achieve negative surgical margins during OPS. Furthermore, meticulous sonographic assessment of specimen margins together with cavity shavings from tumor bed could be a feasible method to decrease re-excision rates without frozen section analysis leading to cost-effectiveness. However, the accuracy of sonography should be questioned in case of ductal carcinoma in situ and lobular histology.

SS82-Favoral Local Control in Patients with Breast Cancer Following SLNB without Axillary Dissection after Neoadjuvant Chemotherapy: Multicentric MF-18-02-Study

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Objective: Omitting axillary lymph node dissection (ALND) following SLNB with residual cancer in patients with locally advanced disease after neoadjuvant chemotherapy (NAC) is still controversial. In this study, we evaluated factors affecting local recurrence and outcome in patients with locally advanced breast cancer (LABC), who underwent sentinel lymph node (SLN) without ALND after NAC.

Materials and Methods: Between 2003 to 2018, 265 patients with clinically node-positive LABC who received NAC and underwent SLNB without ALND were retrospectively analyzed. All patients had whole breast and/or regional nodal irradiation. All recurrences of axilla, peripheric lymphatic, and breast were accepted as locoregional recurrence.

Results: Median age of patients was 45 (23-70). Of those, 191 patients (72%) were clinically T1-2, and 74 patients (28%) were clinically T3-4 before receiving NAC. Of those, whereas 220 patients were cN1 (83%), and 45 patients were cN2-3 (17%). The median number of SLNs removed was 3 (1-7), and the the median lymph node number retrieved was 4 (1-7). Of 265 patients, 184 patients (64%) were treated with breast conserving therapy (BCT), whereas the remaining underwent mastectomy. Of patients, 69% had negative SLNs, and the remaining 81 patients (31%) had positive SLNs (34 micrometastasis, 14 isolated tumor cells and 29 macrometastases), and the majority had (90%) no extracapsular lymph node invasion. At a median follow up time of 39 months (12-172), none of the patients developed an axillary recurrence. The ipsilateral breast cancer recurrence rate was found to be 4.1% among patients with BCT. Furthermore, one patient (0.4%) with macrometastatic SLNB including extracapsular invasion was found to have locoregional recurrence including thoracic wall and supraclavicular region metastasis. Five-year locoregional recurrence (LRR)-free, disease-free survival (DFS) and disease specific survival (DSS) rates were found as 95.1%, 88.5% and 94.2%, respectively. No difference could be found in 5-year LRR-free survival, DFS, and DSS rates between patients with a negative or positive SLNB (LRR-rate: SLNB-negative, 97% vs SLNB-positive, 90%, p=0.20; DSS: SLN(-): 96.5% vs SLNB(+): 94.2; p=0.37; DFS: SLN(-)90% vs SLN(+) 84.7; p=0.14).

Conclusion: Our findings suggest ALND could be safely avoided in patients with LABC who underwent SLNB after receiving NAC in selected patients with good responders to NAC including patients with negative SLNs or low tumor burden such as micrometastasis/ITC or macrometastasis without extracapsular extension as long as axillary radiation therapy is provided

SS83-An Analysis of Demographic, Pathologic, and Clinical Features of Young Age Breast Cancer in Turkish National Breast Cancer Database: MF18-04 Study

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Objective: According to recent epidemiologic reports, young breast cancer incidence is higher than incidence in European and American population. Whether assessing young age as a poor prognostic factor or not in the management of breast cancer patients is still a debate. Even though it shows an aggressive clinical course, there is not enough research about etiology. We aim to analyze the differences between breast cancer patients under and over 40 years.

Materials and Methods: Between January 1998 and January 2019, a total of 23,594 patients were analyzed from National Breast Cancer Database (NBCD). Demographic, clinic, and pathologic features of patients were compared for patients younger than and 40 age and for >40.

Results: Median age was 50 (18-97). 4535 (19%) patients were younger than and 40 age (84% of them were >30), and 19,059 (81%) were >40. In categorical univariate analysis, there were significantly less patients with pathologic T1 (%41 vs %47), N0 (%49 vs %55), and stage I (%25 vs %31) disease in young age group than >40 group ($p<0.001$). Mastectomy (%41 vs %39; $p=0.024$) and axillary dissection rates (%71 vs %65; $p=0.001$) were high in <40 group. Pathologically, patients in <40 group significantly presented with more invasive ductal carcinoma (%76 vs %73; $p=0.001$), higher histologic grade (%54 vs 42; $p=0.001$), more multi-focality/centricity (%19 vs %15), oestrogen (ER) (%31 vs %24; $p=0.001$) and progesterone receptor (PR) (%38 vs %35; $p=0.009$) negativity, hormone receptor negativity (%24 vs %20; $p=0.001$) and HER2-neu positivity (%32 vs %27; $p=0.001$). Furthermore, patients <40 had lower number of luminal-A (%23 vs %33; $p=0.001$) disease but higher number of luminal-B HER2+ (%18 vs %12; $p=0.001$) and triple negative disease (%15 vs %10; $p=0.001$). Multivariate logistic regression analysis of significant variables demonstrated that invasive ductal carcinoma type (1,06-1,43), ER (1,26-1,87) and PR (1,21-1,75) negativity, high histologic grade (1,43-1,87), multi-focality/centricity (1,26-1,72), T3-T4 tumours (81,06-1,66), and axilla positivity were significantly correlated with breast cancers in younger age group.

Conclusion: Our findings revealed that breast cancer in <40 group has higher rates of hormone receptor negativity and higher Ki-67 levels, triple negativity, and more accompanied with multi-focality/centricity. Based on the underlying histopathologic features and presentation with more advanced stage in younger patients, mastectomy and axillary dissection rates were higher for this group. Therefore, young breast cancer may have a more dismal prognosis.

SS84-Is There Any Advantage of Targeted Axillary Dissection after Neoadjuvant Chemotherapy in Patients with Locally Advanced Breast Cancer with Initially Positive Clipped Axillary Node?

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Objective: Detection of the clipped lymph node and removal by targeted interventions with sentinel lymph node biopsy (SLNB) have been shown to reduce the false negative rates in patients with initially positive axilla following neoadjuvant chemotherapy (NAC). We aimed to evaluate the surgical advantage of targeted removal of the metastatic clipped node by various radiological methods in our clinic.

Materials and Methods: Between April 2017 and September 2019, a prospective study was performed in patients with clinically node-positive locally advanced breast cancer (T1-4, N1-2). The metastatic index lymph node was marked with a clip before NAC. Sentinel lymph node biopsy (SLNB) was performed by only blue dye or combined method (radioisotope & blue dye). Based on the surgeon and radiologist preference, the clipped lymph node was marked with radioactive isotope Tc99 or wire or carbon dye on the day of surgery and presence of the clip in the lymph node was demonstrated by specimen radiography.

Results: Forty patients with a clipped lymph node that was radiologically visible (ultrasound or mammogram or CT) were evaluated. The median age of the patients was 45 (24-70), 3 (7.5%) of the cases before NAC were clinically (c) T1, 24 (60%) of them were cT2, 11 (27.5%) were cT3 and 2 (2) were cT4 (5%). 31 cases were N1 (77.5%) and 9 were N2 (22.5%). The clipped lymph node was removed by wire in 32 patients (80%), and by radio-guided occult lesion localisation (ROLL) in 7 patients (17.5%) and by carbon dye injection in 1 patient (2.5%). SLNB was performed with only blue dye in 27 patients (67.5%), and combined method in 13 patients (32.5%). The median number of SLN was 2 (1-5) (1 SLN in 9 patients, 2 SLNs in 17 patients, and 3≤ SLNs in 14 patients). The clipped lymph node was detected in 34 patients (85%) in SLNs and in 6 patients (15%) in non-SLNs with axillary dissection. The clipped lymph node pathology was found to be regression in 14 (38%), metastasis in 17 (46%), metastasis& regression in 3 (8%) and reactive changes in 3 (8%) patients. Twenty-four patients (n=24) who had positive axillary lymph node in frozen section underwent axillary lymph node dissection (91.7%) or level I axillary dissection (8.3%). The false negativity rates (FNR) evaluated in those patients with a pathological positive node and ALND were 12.5% with SLNB technique alone, 12.5% by removal of the clipped lymph node alone, and 4.2% by using both techniques, respectively.

Conclusion: In concordance with previous studies, our findings suggest that removal of the clipped lymph node by guidance of various radiological methods including ROLL, wire and carbon-dye injection in addition to SLNB improves the false negativity rates even more compared to each technique alone. However, experienced radiologists and surgical teams are required to perform these techniques successfully.

SS85-Does Radiation Field Choice Effect Regional Control in Patients with Isolated Tumor Cells or Micrometastatic Disease in Sentinel Lymph Node?

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Objective: Randomized data suggest that axillary clearance is not necessary in select, clinically lymph node negative women with positive sentinel lymph node (SLN) biopsies (SLNBs) who undergo breast-conserving surgery or receive whole-breast radiotherapy and systemic therapy. The additional value of axillary radiotherapy in these patients is unknown.

Materials and Methods: The Society of Turkish Radiation Oncology Breast Cancer Study Group identified 285 patients (%53 <50y vs %47 >50y) with positive SLNBs who underwent breast-conserving surgery (85%), modified or skin sparing mastectomy (15%) without axillary lymph node dissection from 2003 to 2018 SLN tumor deposits measured <0.2 mm in %25 of patients, 0.3 to 2.0 mm in %75 of patients. Radiation fields were categorized as no irradiation or partially breast (n=2), standard tangents (n=117), high tangents (n=66), tangents plus supraclavicular (n=59), comprehensive (tangents plus supraclavicular and internal mammary chain, n=41) to reflect coverage of the axilla. Regional failure was defined as recurrence in the ipsilateral axillary, supraclavicular or internal mammary lymph nodes.

Results: The median follow-up was 44 months (range, 12-176 months). Estimated 5-year rates of regional control, local control, metastasis-free survival, breast cancer specific and overall survival were 99%, 99%, 98%, 98%, and 97%, respectively. Only one patient had regional recurrence at supraclavicular region. This patient received adjuvant radiotherapy with standard supine tangents, she was diagnosed at 34 years old with a luminal A tumor however relapsed with triple negative disease after 68months.

Conclusion: Regional control was high (99% at 5 years) in patients who had low-volume SLN disease who did not undergo axillary dissection, regardless of whether the axilla was irradiated. Whole-breast radiation alone seems sufficient treatment after breast-conserving surgery for select patients with tumor-containing SLNs who omit axillary dissection.

Keywords: Sentinel lymph node biopsy, axillary lymph node dissection, radiotherapy, breast cancer

SS88-Our Clinical Approach in Phyllodes Tumors of the Breast: Single Center Experience

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Objective: It is a rare fibroepithelial breast tumor which makes up 0.3-0.9% of primary breast neoplasms. In this article, we aimed to investigate the demographic, clinicopathological findings and treatment methods of patients treated with phyllodes breast tumors.

Materials and Methods: Data of 23 patients with phyllodes tumor treated between January 2010 and July 2019 were reviewed retrospectively.

Results: The mean age was 44.1 (20-64) years. The most common presenting symptom was a rapidly growing mass. The disease was in the right breast in 12 patients and bilateral in 1 patient. Radiologically, 14 patients were evaluated by breast USG, 5 patients by USG + mammography, 4 patients by USG + mammography + breast MRI. Of the 14 patients admitted to the outpatient clinic, 8 were diagnosed after an excisional biopsy. Of the 9 patients who underwent preoperative tru-cut biopsy in our clinic, 5 were diagnosed with fibroepithelial lesions, 3 with phyllodes tumor and 1 with malignant phyllodes tumor. 14 patients underwent segmental mastectomy, 5 patients underwent simple mastectomy, 4 patients underwent subcutaneous mastectomy and appropriate reconstruction. The mean tumor size was 64.6 (20-220) mm. Histopathologically, 9 benign, 6 borderline and 8 malignant phyllodes tumors were detected. Lobular carcinoma in situ was detected in one patient with benign phyllodes tumor. The mean follow-up period of patients with malignant phyllodes tumor was 39.5 (6-46) months. One of the patients with malignant phyllodes tumors received chemotherapy for distant metastasis, and three received radiotherapy for surgical margins. One patient who refused radiotherapy was admitted with local recurrence 6 months later.

Conclusion: Phyllodes tumors are rare, mixed breast tumors. It may be confused with breast fibroadenomas clinically, radiologically and histopathologically. Diagnosis should be confirmed by preoperative tru-cut biopsy to perform appropriate treatment even in patients with suspected fibroadenoma. Because of high local recurrence rates and malignancy potentials, they should be diagnosed preoperatively and treated with correct surgery in a single session.

Keywords: Filloides tumor, fibroadenoma, biopsy, mastectomy

SS90-Treatment Outcomes of Breast Cancer Lung Metastasis Treated with Stereotactic Body Radiotherapy

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Objective: To analyze the outcomes of breast cancer lung metastasis (BCLM) treated with stereotactic body radiotherapy (SBRT) and systemic treatment.

Materials and methods: The treatment outcomes of 19 patients with oligometastasis (<5 metastases) at the time of lung metastasis (LM) or who became oligometastatic after systemic treatment were assessed. A total of 23 LM's were treated with SBRT with a median 3 fractions (range, 3-10 fractions) to a total dose of 60 Gy (range, 30-60 Gy) between May 2011 and February 2019. The local control (LC), overall survival (OS), and progression-free survival (PFS) rates were calculated using Kaplan-Meier analyses.

Results: Median age and follow-up time were 47 years (range 32 – 76 years) and 14.5 months (range 1.1 – 49.9 months), respectively. Among 19 patients, 16 (84%) had solitary LM while 2 patients (11%) had two lesions and 1 patient (5%) had three lesions. Estrogen receptor (ER) and progesterone receptor (PR) were positive in 12 patients (52%) and 8 patients (35%), respectively. All patients had mastectomy for primary disease, and 17 patients (89%) received postoperative adjuvant chemotherapy and radiotherapy, while 2 patients (17%) had adjuvant chemotherapy only. Most of the patients [17 patients (89%)] developed LM during the follow-up of initial treatment, while only 2 patients (11%) had LM at the time of first diagnosis. At last visit, 11 patients (58%) had disease recurrence, median 8.4 months (range 3 – 16.3 months) after completion of liver SBRT. Only 5 patients (26%) had local recurrences. Median OS and PFS were 19.1 months [95%

confidence interval (CI) 11.2 – 26.9 months]) and 8.3 months (95% CI; 7.9 – 8.8 months), respectively. The 1-year LC and OS rates were 82% and 49%, respectively.

Conclusion: This study is the first to evaluate the feasibility of SBRT to BCLM patients in a larger patient cohort. Our findings support that the lung SBRT is a feasible and safe method for BCLM with excellent LC and acceptable toxicities.

SS91-Neoadjuvant Chemotherapy and Post-Surgical Radiotherapy in Patients with Breast Cancer with Clinical Stage II-IIIa

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Objective: The benefit of neoadjuvant chemotherapy (NACT) and postoperative radiotherapy (RT) on local - regional survival and overall survival remains unclear. The aim of this study was to investigate the outcomes of patients with stage II - IIIa breast cancer who underwent NACT and postoperative RT.

Material and methods: Data of 85 breast cancer patients admitted to our clinic between 2014 and 2017 after NACT and surgery were analyzed and 66 patients with stage II-IIIa were included in the study. General characteristics of the patients are listed in Table 1. Statistical analysis was performed using SPSS software 23.0 (IBM Corporation, Armonk, NY, USA). For disease-free survival (DFS) and overall survival (OS), the biopsy date was determined as the first diagnosis date and Kaplan-Meier method was used for analysis.

Results: The median follow-up period was 32 months. All patients received NACT and 33% underwent breast conserving surgery. Nine patients (13.6%) underwent nipple sparing mastectomy and reconstruction with prosthesis, while only one patient (3%) underwent skin sparing mastectomy. Pathologic complete response (pCR) was observed in 24.2% of the patients. When the complete response rates were evaluated according to the molecular subgroups of the patients, pCR rates were significantly higher in patients with her-2 positivity. Patients received adjuvant RT after surgery. For 3-year DFS is 89% and OS is 92%.

Conclusion: Early results of stage II-IIIa breast cancer patients who underwent neoadjuvant chemotherapy were obtained. RT has been applied to all patients and with the conclusion of randomized trials, it is expected that the groups that will benefit from RT will be better identified.

SS93-The Role of MRI in the Evaluation of Treatment-Response in Breast Cancer Patients Receiving Neoadjuvant Chemotherapy

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Objective: The necessity of neoadjuvant chemotherapy (NAC) is indisputably important in the management of invasive breast cancer patients. NAC can provide operability in patients with locally advanced breast cancer, eliminate the need for axillary dissection in patients with axillary metastasis, and allow breast-conserving surgery (BCS) in patients with large tumor size. In the determination of these patients; MRI has an important role in the evaluation of tumor diameter, localization and tumor number, depth of invasion and lymph node (LN) metastasis. In this study; the extent to which MR imaging can predict the pathological response in the evaluation of regression in primary tumor and axillary LN metastasis in breast cancer patients receiving NAC.

Material and Methods: The data of 89 patients with breast cancer who received NAC between January 2014 and July 2019 were retrospectively reviewed. The RECIST criteria obtained by evaluating the MR images of the patients receiving NAC before and after neoadjuvant treatment were compared with the Miller and Payne grading system used to evaluate pathological regression. RECIST criteria were evaluated by a single radiologist.

Results: The mean age of the patients was 48.5y, and 62% of the patients had axillary FNAB before NAC. While the mean tumor size before NAC was 36.4 mm, the mean size after NAC decreased to 13.8 mm. pCR and rCR ratios were compared according to the receptor status of the patients. Complete response rates were higher in HER2 and Triple negative tumors. The patients with pCR and rCR were compared and PPD was 78.1% and NPD was 94.7. It can be said that MR imaging is more successful in the evaluation of LN regression among subtypes after NAC, especially in patients with Luminal A and HER 2 groups.

Conclusion: MR imaging has an important role in staging and treatment priority in breast cancer patients. In our study, we observed that MRI detected tumor size in 78% of patients with pCR and 94% in patients without pathological complete response, and also showed a high accuracy rate in axillary regression, especially in Luminal A and HER 2 patients.

SS94-Usefulness of Imaging Findings in Predicting Tumour-Infiltrating Lymphocytes in Patients with Breast Cancer

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Objective: Tumour-infiltrating lymphocytes (TILs) have been determined as a new prognostic indicator of immunotherapy response in breast cancer (BC). The aim of this study is to investigate the effectiveness of imaging features in predicting the TIL levels in invasive BC patients.

Materials and Methods: A total of 158 patients with invasive BC were included in our study. All lesions were evaluated based on the BIRADS lexicon. US was performed for all the patients and 89 of them underwent MRI. The histologic stromal TIL (sTIL) levels were assessed and associations between the sTIL levels and imaging features were evaluated.

Results: Tumours with high sTIL levels had more circumscribed margins, round shape, heterogenous echogenicity and larger size on ultrasonography ($p<0.005$). There was a statistically significant positive correlation between the sTIL levels and ADC value ($p<0.001$). Tumours with high sTIL levels had significantly more homogeneous enhancement than the tumours with low sTIL levels ($p=0.001$). Logistic regression analysis showed that the ADC was the most statistically significant parameter in predicting the sTIL levels (the odds ratio was 90.952; $p=0.002$). The optimal cut-off value for ADC in predicting low and high sTIL levels was found to be $0.87 \times 10^{-3} \text{ mm}^2 \text{ s}^{-1}$ (AUC=0.726, 73% specificity and 60% sensitivity).

Conclusion: Imaging findings, especially the ADC, may play an important role in predicting the sTIL levels as a non-invasive method and improve the accuracy of biopsy results in uncertain situations, giving an opportunity for optimal therapeutic management and prognosis estimation.

SS95-The Comparison of US and MRI in the Assessment of Metastatic Axillary Lymph Nodes

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Objective: Axillary lymph node (ALN) metastasis is the most significant prognostic factor for predicting overall survival in breast cancer patients. Ultrasonography (US) and magnetic resonance imaging (MRI) are commonly used imaging methods in the detection of breast cancer lymph node metastasis (1, 2). The accurate assessment of ALN at preoperative period will guide the choice of appropriate surgical approach to the axillary and prevent potential surgery-related complications such as lymphedema, seroma and nerve injury. In this study, we aimed to compare effectiveness of MRI and US in the assessment of axillary.

Materials and Methods: We retrospectively screened 1004 patients, who underwent US and MRI between 2016 and 2019. There were 257 patients with category 4, 5 or 6 according to Breast Imaging Reported Data System classification. Patients with received neo-adjuvant therapy excluded from the study. The MRI and US results were compared with histopathologic results of sentinel lymph node biopsy or axillary lymph node dissection.

Results: The lesion was identified as malignant in 209 patients. Patients with received neo-adjuvant therapy ($n=48$; 23%). The remaining 161 patients underwent surgery. Of these, histopathological examination of ALNs was reported as positive in 73 patients and negative in 88 patients. The sensitivity, specificity values were 94.81%, 88% according to US and 89.02%, 73.95% according to MRI for the detection of metastatic ALNs, respectively.

Conclusion: Dynamic-enhancement breast MRI is highly effective in detection of multi-focal, multi-centric lesion, invasion of skin and pectoral muscle. But, the result is not the same in the assessment of metastatic ALN. Ultrasonography is readily available, inexpensive, practical and successful imaging modality in the assessment of ALN. Major disadvantage of US is highly dependent to experience of radiologist. In our study, we observed that both sensitivity and specificity of US was statistically superior than MRI for the detection of metastatic ALNs.

Keywords: Ultrasonography, axillary lymph node, magnetic resonance imaging, breast cancer

SS96-Prognostic Importance of PAM50 Intrinsic Typing Genetic Test in Breast Cancer Patients Receiving Hormone Therapy

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Objective: The most common cancer in women is breast cancer. Molecular risk factors can determine mortality and recurrence risk in patients. In some studies, it was tried to determine the optimal duration of hormone therapy. Multiple gene testing revealed risk factors and valuable prognostic information in individualized patient management.

Materials and Methods: In order to determine prognosis in breast cancer patients receiving postoperative hormone therapy, gene expression values of patients were investigated with PAM50 (Predictive Analysis of Microarray) genetic test. The effect of PAM50 subtyping based on multiple gene test analysis on the calculation of recurrence risk and prognosis can be demonstrated in breast cancer patients receiving hormone therapy. Thus, patient groups that require prolonged hormotherapy can be identified. The aim of this study was to determine the risk of recurrence with PAM50 subtyping test and accordingly, to determine the prognosis in patients receiving hormone therapy and also to determine the prognostic value of PAM 50 test. Between January 2001 and June 2015, 72 patients who underwent surgery for breast cancer and received only hormone treatment were included in the study. The file information of the cases was investigated and gene expression values of 50 genes were obtained and compared with the patients information. Gene expression values were compared with the computer program developed by Prosigna® for PAM50. Current literature was searched according to the increase and decrease of gene expression.

Results: The PGR gene is more expressed in patients under 50 years; increased ESR gene expression in patients without lymph node metastasis; increase in MELK and FOXA1 gene expression and decrease in CDH3 gene expression in patients without lymphovascular invasion; MYBL2, EXO1, UBE2C and TYMS gene expressions were increased in patients with metastasis; It was found that ERBB2 gene expression was increased in Her2-neu positive patients and CEP55 and FGFR4 gene expressions were increased in patients who died. We found similar results in our comparison with the literature.

Conclusion: PAM50 genetic testing has shown similar gene expression results for the Turkish population as described in the literature. Genetic testing can be performed safely in patients with indication. It may be a laboratory test to help predicting the prognosis of the disease. It was found to be helpful in terms of treatment type and duration. We evaluated that the use of PAM50 test, which aim. The most common cancer in women is breast cancer. Molecular risk factors can determine mortality and recurrence risk in patients. In some studies, it was tried to determine the optimal duration of hormone therapy. Multiple gene testing revealed risk factors and valuable prognostic information in individualized patient management.

SS97-Metformin Initiates Apoptosis in ER+PR+Breast Cancer Cells via Downregulation of Cyclin D1 and Upregulation of P53 through AMPK- α

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Objective: The aim of the study was to figure out the effect of metformin on the expression of cyclin D1 and Tp53, and apoptosis in primary breast cancer cells (PBCCs) through AMPK- α .

Materials and Methods: ER+PR+ PBCCs were treated with two doses of metformin (0mM, 25mM). Proliferation was determined via BrdU assay. Real-time PCR was used to assess cyclin D1, Tp53, and AMPK α , gene expressions; apoptotic indexes of PBCCs were calculated via flow cytometry.

Results: 24 hour-incubation with 25 mM metformin reduced the proliferation of PBCCs. AMPK α gene expression in PBCCs was considerably affected by 25 mM metformin treatment, in which high metformin concentration showed a significant inhibitory effect on AMPK α expression compared with the control group. PBCCs treated with 25 mM metformin had lower cyclin D1 expression compared with non-treated cells, however, the difference was not statistically significant. 25 mM dose of metformin increased p53 expression significantly compared with the non-treated group. A high concentration of metformin elevated the number of Annexin V positive apoptotic cells and the increase in apoptotic index was statistically significant.

Conclusion: Metformin can regulate cyclin D1 and p53 expression via expression of AMPK-a in ER+PR+ breast cancer cells, leading to cell proliferation inhibition and apoptosis induction.

SS98-To Identify Idiopathic Granulomatous Mastitis and Malignant Breast Lesions by ARFI Elastography

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Objective: The B-mod ultrasonography (US) imaging features of IGM are not specific. Acoustic Radiation Force Impulse (ARFI) imaging is qualitatively and quantitatively analyzes tissue stiffness. The aim of this study was to investigate the ARFI elastography characteristics of IGM and malignant breast lesions.

Materials and Methods: This study was performed August 2017-August 2019. A total of 94 malignant breast lesions and 39 IGM patients were included in the study. US findings of the lesions were analyzed according to the Breast Imaging Reporting and Data System. In qualitative evaluation of elastography; lesions were divided into 4 patterns. Evaluation with quantitative; the mean SWV value was obtained for each lesion. The chi-square test was performed to determine the relationship between categorical variables. Cut off value of SWV was determined by ROC analysis for IGM and malignant lesions.

Results: The lesions was irregularly margin in both groups, and more spiculated contour was seen in malignant lesions, and angled margin was more prominent in IGM ($p<0.05$). In the evaluation with qualitative elastography; malignant lesions frequently showed pattern 4b, and pattern 1 and 2 were the most common in IGM ($p=0.00$). In the evaluation with quantitative elastography; the mean SWV in malignant lesions was 5.34 ± 1.43 m/s and the mean SWV in IGM was 3.78 ± 1.26 m/s, which was significantly higher in malignant lesions ($p=0.00$). Cut-off value for SWV; It was found to be 4.34 m/s with 72% specificity and 74% sensitivity.

Conclusion: According to the our results of SWV in elastography; malignant lesions were stiffer than IGMs. In the evaluation with qualitative; IGM lesions often show pattern 1 and 2, and can be differentiated from malignant lesions with statistical significance. In this study, we think that we can have a prediction in the differential diagnosis of malignant lesions and IGMs by adding elastography data to the evaluation stage by US.

Keywords: Idiopathic granulomatous mastitis malignant breast lesion ultrasound elastography

SS99-Anti-Mullerian Hormone (AMH) Levels and Antral Follicle Counts (AFC) Are the Earliest Factors to Predict Ovarian Reserves before Systemic Chemotherapy (SC) in Women with Breast Cancer (BC); A Prospective Clinical Study

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Objective: The aim of this study is to investigate the effect of systemic chemotherapy on Anti-Müllerian Hormone levels, antral follicle counts and ovarian volumes in patients with breast cancer.

Materials and Methods: The effects of different chemotherapy regimens on anti-müllerian hormone levels, antral follicle counts and mean ovarian volumes in terms menstrual cycles resumption and chemotherapy induced amenorrhea were investigated in 3-month periods.

Results: Seventy-one patients were eligible for the study. Median age was 38 years (ranging from 23 to 51 years) and median follow-up was 37 months (ranging from 20 to 51 months). Anti-müllerian hormone levels before chemotherapy (median: 1.520 vs. 0.755, $p=0.001$), at the end of first year (median: 0.073 vs. 0.010, $p=0.030$) and pre-treatment antral follicle counts (median 12 vs. 4.50, $p=0.026$) was lower in patients with chemotherapy induced amenorrhea compared to those without. In the multivariate logistic regression analysis, anti-müllerian hormone levels (OR: 0.273, 95% CI 0.102– 0.733, $p=0.010$) and antral follicle counts (OR: 1.180, 95% CI; 1.016-1.369, $p=0.030$) before systemic chemotherapy were the most valuable and earliest factors to predict chemotherapy induced amenorrhea. There were no significant relationships between age of the patients (≤ 30 vs. >30), BMI (30 vs. >30), systemic chemotherapy regimen and number of cycles (4 vs. >4) and chemotherapy induced amenorrhea ($p>0.05$).

Conclusion: Systemic chemotherapy significantly decreases anti-müllerian hormone levels and antral follicle counts independently of chemotherapeutic agents in patients with breast cancer. The low anti-müllerian hormone levels and fewer antral follicle counts before systemic chemotherapy predict chemotherapy induced amenorrhea.

SS100-Effects of Progressive Muscle Relaxation and Mindfulness Meditation on Fatigue, Coping Styles, and Quality of Life in Breast Cancer Patients: A Randomized Controlled Clinical Trial

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Objective: Several women with a diagnosis of breast cancer suffer from significant emotional distress in terms of anxiety, fear, and depression that negatively impact the healing process. To counter such psychological disturbances, mind and body techniques such as breathing exercises, progressive muscle relaxation, and mindfulness meditation can prove to be extremely beneficial. The present study aimed to examine the effects of progressive muscle relaxation and mindfulness meditation on fatigue, coping styles, and quality of life in patients with breast cancer receiving adjuvant paclitaxel.

Materials and Methods: The participants were randomly assigned to either a 12-week (progressive muscle relaxation) (n=31) and mindfulness meditation (n=32) interventions or control group (n=29). The intervention groups continued progressive muscle relaxation or mindfulness meditation for 20 minutes every day, for a total of 12 weeks at their home. The control group received only a single time face to face education (15 minutes) on breast cancer before the start of the paclitaxel regimen. Data collection tools included the Patient Information Form, Brief Fatigue Inventory, Brief COPE, and Functional Living Index-Cancer. Data were collected at baseline, week 12, and week 14.

Results: A significant reduction in the fatigue scores was reported in the progressive muscle relaxation and mindfulness meditation groups when compared with the control group at weeks 12 and 14. Similarly, the use of emotional support and positive reframing sub-dimension scores of Brief COPE were significantly higher in the progressive muscle relaxation and mindfulness meditation than in the control group at weeks 12 and 14. Furthermore, the planning and active coping sub-dimension scores were significantly higher in the progressive muscle relaxation and mindfulness meditation than in the control group at week 14. Regarding quality of life scores, no significant differences were observed between the three study groups at weeks 12 and 14.

Conclusion: Progressive muscle relaxation and mindfulness meditation are effective interventions that if initiated concurrently with the adjuvant paclitaxel demonstrate similar effects on fatigue and coping styles. Based on the study results, we conclude that progressive muscle relaxation and mindfulness meditation interventions could be safely integrated into the clinical practice for patients with breast cancer who scheduled to receive adjuvant paclitaxel therapy.

SS101-Does Microscopic Epidermal Ulceration Present Effect The Breast Cancer Stage?

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Objective: Invasive breast carcinoma is the most common cancer in women. Accurate staging after diagnosis is very important in predicting prognosis and evaluating treatment response. According to the TNM classification of breast cancer, tumors that show direct extension to the chest wall and/or skin regardless of size are considered pT4. However, to diagnose pT4 breast cancer, skin invasion must be accompanied by ulceration or macroscopically defined skin nodules. Only the presence of dermal invasion is not sufficient for the pT4 stage. In this study, we aimed to evaluate the effect of epidermal ulceration on prognosis in breast cancer patients with microscopic dermal invasion.

Materials and Methods: The study included 193 patients diagnosed with breast cancer in our hospital between 2002 and 2016 who had microscopic dermal invasion. Preparations were re-evaluated for tumor type, histological grade, tumor size, lymphovascular invasion, receptor and HER2 status as well as the presence of epidermal ulceration. Local recurrence and overall survival data of the patients whose treatment was continued in our hospital after diagnosis and followed up were obtained and statistical analysis was performed using SPSS 15.0.

Results: 184 patients were female and their ages ranged between 26-91 (mean 59.5). Microscopic epidermal ulceration was detected in 17.6% of the patients. The most common tumor type was invasive ductal carcinoma (45.8%) and most of the patients (62.4%) were grade 2. The presence of microscopic epidermal ulceration was significantly associated with blood vessel invasion (p=0.035). Distant metastasis was detected in 76.2% of the patients who had epidermal ulceration in pathology specimens (p=0.006). In patients with a mean follow-up of 76.7 months, distant metastasis was significantly associated with survival (p<0.001). The presence of epidermal ulceration did not show a significant relationship with survival.

Conclusion: Although the presence of microscopic epidermal ulceration is significantly associated with blood vessel invasion and distant metastasis, it is not related to overall survival. However, in breast cancer patients with microscopic dermal invasion accompanied by epidermal ulceration, chemotherapy can be planned more effectively for distant metastasis.

Keywords: Breast cancer, dermal invasion, epidermal ulceration

SS102-HER-2 Positive Non-Metastatic Breast Cancer Patient Data Single Center Experience

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Objective: Breast cancer is the most common female cancer and the second most common cause of cancer death in women. Breast cancer is categorized into 3 major subtypes based on the presence or absence of molecular markers for estrogen or progesterone receptors and human epidermal growth factor 2 (ERBB2; formerly HER2): hormone receptor positive/ERBB2 negative (70% of patients), ERBB2 positive (15%-20%), and triple-negative (tumors lacking all 3 standard molecular markers; 15%). In this study, hormone receptor positive breast cancer patient data are presented.

Material and Methods: Non-metastatic, hormone receptor positive breast cancer patients admitted to our clinic between 2003 and 2018 were retrospectively analyzed.

Results: 295 non-metastatic breast cancer patients were included in the study. The mean age of the patients was 53.2 (29-92) years. 101 (34.2%) of them were premenopausal and 194 (65.8%) of them were postmenopausal. Histologically, 226 (76.6%) patients had invasive breast cancer - NOS. In histological grade, 119 (40%) patients were grade 2 and 97 (32.8%) patients were grade 3. Tumor localization showed that 54 (18.3%) patients had multicentric and multifocal localization and multicentric/multifocal survival was significantly shorter than unifocal breast cancer ($p=0.001$).

Conclusion: Recently it has shown that breast cancer contributes 11% among all types of cancer diagnosed globally on an annual basis and it is one of the leading causes of death among women. The only significant, independent prognostic factors in breast cancer are node status, HER2 status and menopausal status. On the other hand, multicentric localization of the tumor in hormone receptor positive cases is associated with poor prognosis and should be considered in patient follow-up and treatment management.

SS103-Is It Safe to Omit Chemotherapy in Pure Tubular Breast Carcinoma?

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Objective: Pure tubular carcinoma (PTC) is a rare, well differentiated tumor of breast with low locoregional recurrence rate (LRR). This study aims to assess survival of early PTCs.

Materials and Methods: Patients who were operated for breast cancer between 2010-2018 were searched retrospectively. Type of surgery, histological and immune histochemical properties of tumor, and adjuvant treatments were recorded. All patients diagnosed with PTC were included in study.

Results: One-thousand nine-hundred eighty female patients who were diagnosed with breast cancer (any type and status) between 2010-2018 were evaluated retrospectively and 36 were diagnosed with PTC. Four were excluded due to other malignancies in contralateral breast (invasive tumor, $n=3$; Paget's disease, $n=1$). Twenty-seven patients underwent to BCS, three nipple sparing mastectomy (NSM), one skin sparing mastectomy (SSM), and one underwent to simple mastectomy. Mean age was 49.1 ± 7.7 (range: 39-73) years. Mean pathological tumor size was 8.8 ± 4.2 (range: 3-18) mm. One of 32 patient had multi-focal and one patient had multi-centric tumor. While no tumors exhibited LVI, all tumors presented estrogen receptor positivity and no amplification of human epidermal growth receptor 2. Twenty-seven tumors presented progesterone receptor positivity, while rest four didn't. Ki-67 score was measured in 30 tumors and yielded mean value as $7 \pm 4\%$ (range: 1-16). Histologic grade was low (score: 1) in all cases, whereas, nuclear grade was low (score: 1) in 12(37.5%) patients and intermediate (score: 2) in 20(62.5%) patients. No patients received chemotherapy, despite, 22(31.3%) received radiotherapy. No recurrence nor breast cancer related mortality was seen during mean follow-up of 60 ± 23 (range: 22-108) months.

Conclusion: Chemotherapy can be omitted in cT1 PTC especially if it has low grade and low Ki-67.

SS105-Descriptive Factors for Pathological Complete Response in Breast Cancer Patients after Neoadjuvant Chemotherapy

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Objective: We aimed to examine the characteristics of the patients who were admitted to our hospital with the diagnosis of breast cancer and who were operated after 8 cycles of neoadjuvant chemotherapy (NAC) and received pathological complete response (pCR).

Materials and Methods: After NAC between 2016-2018, pCR patients who were operated and sent to our clinic for radiotherapy were evaluated. The last follow-up of patients was in June 2019, so that the last patient taken to the study in December 2018 was followed for at least 6 months. Statistical methods: Average, standard deviation, median, lowest, highest, frequency and rate values were used in the descriptive statistics of the data. The distribution of the variables was measured by Kolmogorov-Smirnov test. The Mann-Whitney U test was used in the analysis of quantitative independent data and the chi-square test was used in the analysis of qualitative independent data. The SPSS 17.0 program was used in the analyses. $p < 0.05$ was considered significant.

Results: Of the 129 patients who received NAC over the 3-years period, 33 (26%) had pCR. Patients were divided <50 years of age ($n: 20$ /mean age 41.50 ± 5.27) and >50 years of age ($n: 13$ /mean age 57.00 ± 6.76) in 2 groups. Before NAC; tumor diameter, histological grade, type of surgery, pure her-2 positivity, triple negative receptors, radiotherapy and hormone therapy administration, absence of family history and absence of metastasis were not found statistically significant. Before NAC; age ($p=0.001$), nuclear grade height ($P=0.024$); luminal - A subtype ($p=0.036$); luminal-B subtype ($p=0.005$), addition of Trastuzumab ($p=0.002$) to chemotherapy was statistically significant has been found. 1 bone metastasis, 1 liver metastasis, 1 local recurrence were observed in patients under the age of <50 . Overall survival was 18 months in patients <50 years of age, >23 months in patients 50 years of age.

Conclusion: The use of NAC is becoming more and more common in breast cancer treatment due to the reduction of the mass size and the possibility of breast preventive surgery. Addition of human epidermal growth factor receptor antagonist agents, the rate of complete response to NAC is increasing. Local recurrence and distant metastasis were observed in the younger patient group despite pCR. 2 of these patients are her-2 positive, 1 was luminal-A subtypes. It was found statistically significant that in patients with breast cancer aged <50 years of age, the tumor had a high nuclear grade prior to NAC, luminal-B subtype, and the addition of trastuzumab to chemotherapy. Luminal-A subtype were found to be statistically significant in >50 -year-old patients. In patients with these parameters, we think that a pathological complete response can be obtained.

SS108-Is Clinical Importance of PDL1, CTLA-4 Positive Tumor-Infiltrating Lymphocytes Expression in Patients with Local Advanced Breast Cancer after Neoadjuvant Chemotherapy?

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Objective: In recent years, studies on cancer immunology, a promising area in terms of developing new treatment modalities in advanced breast cancer patients, are gaining momentum. In this study, we aimed to determine the expression of immune check point receptors including PDL-1, CTLA-4 in breast cancer, to determine the associations between these molecules and other prognostic factors, the prognosis of the disease and the efficacy of targeted therapies for these molecules.

Materials and Methods: Nineteen patients with partial response after neoadjuvant treatment with locally advanced breast cancer were included in the study. Tumor infiltrating lymphocytes were isolated from the tumor tissue obtained from the excised surgical material using MACS tumor separation device and tumor separation kit. Expressions of CD8 positive T regulatory-cytotoxic T lymphocytes and receptors regulating many different immune control mechanisms expressed in CD16 and/or CD56 positive Natural Killer cells in tumor infiltrating lymphocytes were analyzed by flow cytometry.

Results: Our results demonstrated higher levels of CTLA-4+CD8 cells in patients younger than 50 years compared to patients >50 age (12.7% vs 7%; $p=0.027$). However, patients with a good response to neoadjuvant chemotherapy ($>20\%$ regression) were more likely to have higher PD-1 expression in CD8 + cytotoxic T lymphocytes but this association did not reach the statistical significance. Similarly, CTLA-4 levels in CD56 + lymphocytes were higher in patients with Ki-67 index below 5% after chemotherapy compared to others (14.3% vs 8.5%; $p=0.043$). Furthermore, PD-1 levels were found to be higher in CD8 + cytotoxic T lymphocytes in patients with pathological stage T3 & T4 after neoadjuvant treatment compared to earlier stages T1&T2 (14.4% vs 8.4%; $p=0.04$). Similarly, PD-1 + CD56 lymphocytes (13.3% vs 8.1%; $p=0.05$)

were more likely to be found in patients with lymph node metastasis compared to others. Interestingly, CTLA-4 levels in CD56 + lymphocytes were higher in patients with extensive intraductal component (>25%).

Conclusion: Our results demonstrated that expression of PD1 and CTLA-4 positive tumor infiltrating lymphocytes were found to be correlated with chemotherapy response. These findings suggest that immunotherapy modalities including PD1 and CTLA-4 inhibitors combined with chemotherapy may increase the response to systemic treatment compared to chemotherapy alone, causing a more effective therapeutic effect by this pathway.

SS109-Correlation of PET-CT Findings with Histopathological Parametres and Survival of Newly Diagnosed Breast Cancer

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Objective: The aim of this study was to determine the correlation between 18F-FDG-PET-CT findings, histopathological parametres and survival of newly diagnosed breast cancer.

Materials and Methods: Clinical and histopathological parametres of patients with newly diagnosed breast cancer (tumor ≥ 1 cm) who were underwent a 18F-FDG PET-CT for staging between 2009-2013, were evaluated retrospectively. Primary tumor SUVmax value and metabolic tumor volume (MTV) were calculated and compared with histopathological parametres of primary tumor and five years overall survival results. SPSS v24 program was used for statistical analyses.

Results: 81 female patients were included the study, mean age was 52 (25-82). Based on 18F-FDG PET-CT, correlative imagings and histopathological results, 21 patients (26%) had early stage, 35 patients (43%) had local advanced, and 25 patients (31%) had metastatic breast cancer. Primary tumor SUVmax values were higher in ER-, (ER- x ER+, $p=0.001$), PR- (PR- x PR+, $p=0.031$), Ki67 >20 (Ki-67 <20 x Ki-67% ≥ 20 , $p=0.019$), histological grade 3 (grade3 x grade 1-2, $P=0.01$), nuclear pleomorphism score 3 (score 3 x score 1-2, $p=0.005$) and mitotic score 3 (score 3 x score 1-2, $p=0.009$). In a comparison between primary tumor MTV and histopathological parametres, significant difference was found between ER- and ER+ patients ($p=0.025$), however, no significant differences were observed in other parametres. Five years overall survival ratio was 48%, and disease free survival ratio was 40.7%. Significant correlations were found between primary tumor MTV values, mortality and recurrence ratios ($p<0.001$, $p<0.001$). However, no correlation was found between primary tumor SUVmax values, mortality and recurrence ratios ($p=0.288$, $p=0.476$). According to ROC curve analysis, the threshold value was found 15 cc for determining the mortality related to breast cancer (sensitivity: 73.8%, specificity: 64.1%), and 13.9 cc for determining recurrence (sensitivity: 75%, specificity: 64.5%).

Conclusion: This study shows a significant correlation between primary tumor SUV max levels and histopathological parametres, beyond that primary tumor MTV levels could be helpful for determining overall survival and disease free survival.

Keywords: Pet, histopatpathology, survival

SS110-Breast Cancer Follow-Up Application and Its Availability Assessment

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Objective: Health monitoring practices are an important part of public health services. With these applications, patients' credentials, disease information, treatment and survival information are recorded and monitored. In particular, the collection, recording and registration of country data, national health assessments of these registration practices are very important in terms of making scientific academic publications using this data in international platforms. In this study, breast cancer follow-up application developed for the records and follow-up of patients undergoing surgical treatment for breast cancer and the availability of this application evaluated.

Materials and Methods: For the evaluation of the ability of breast cancer follow-up application, a list of people who work in ten different tasks and who will input data has been created first. On this list there are total of 13 participants (6 females, 7 males) at arched training levels by requesting that data be entered using the breast cancer follow-up application. The processing times and the number of clicks that participants spent performing their tasks were recorded in the observation form. The time spent on tasks has been eliminated. In addition, demographic characteristics such as age, gender, occupation, daily computer use of the participants were collected by user information questionnaire. After completing the data entries of the participants were evaluated using the Computer Systems Usability Questionnaire (T-CSUQ-SV) version (including 13 questions). After the general data was received, task completion rates and clicks were analyzed, taking into account the duration of the participants' transactions on the tasks. Finally, the system usefulness, information quality, interface quality and general satisfaction values of the application developed with the survey were obtained. The relationship between these values and the demographic data of the participants was determined using the Kruskal Wallis H Test and Mann Whitney U tests.

Results: When the results were examined, it was observed that the participants were successful in completing eight of the ten tasks. However, it was observed that participants needed a lot of time on the task of creating a new patient record. Similarly, the average number of clicks was higher for failed tasks. When the overall survey results were examined, system usefulness, information quality, interface quality and overall satisfaction values were 2.07, 3.69, 2.513 and 2, respectively. According to the results, participants found the application satisfactory, but thought error messages should be more descriptive. When the relationship between demographic data and satisfaction parameters was examined, it was determined that there was a significant correlation between daily computer use and system usability ($p=0.028$) and interface quality ($p=0.016$).

Conclusion: The availability of breast cancer follow-up application developed was evaluated. By eliminating identified deficiencies, we obtain data for the development of a more practical, user-friendly and usable application for recording and tracking the data of breast cancer patients. In addition, data were obtained in terms of determining the factors to be considered in the design of health monitoring applications to be developed.

Keywords: Health monitoring applications, T-CSUQ-SV, usability, usability test, breast cancer

SS111-Oncoplastic Reduction Mammoplasty in Patients with Macromastia and Breast Cancer: Aesthetic and Oncologic Results

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Objective: The aim of our study is to investigate the aesthetic results in breast cancer patients with macromastia, to whom oncoplastic surgery was performed and their affecting factors and to examine oncological results.

Materials and Methods: A retrospectively study was reviewed of 72 women with breast cancer and macromastia who operated bilateral reduction mammoplasty from January 2003 to December 2013. In order to evaluate the cosmetic results, all patients were called by the phone number which were recorded on the Probel System. 32 patients who agree to participate in the study was called to the hospital. They were informed and their informed written consent was obtained for the inclusion in the current study.

Results: The median age of the 32 patients who participated in this study was 50(39-64), median body mass index (BMI) 29.1 kg/m² (22 kg/m²-36 kg/m²), The median follow-up was 89.2 months (28-132 months). Age, BMI, preoperative breast volume, extracted specimen volumes and postoperative volume of breast and the results of the aesthetic panel evaluations, there was no statistical significance between ($p>0.05$). In our study, 13 patients (40.6%) were in the premenopausal period and 19 patients (59.4%) were in the postmenopausal period. 11 patients of 13 in the premenopausal period (84.6%) and 7 (36.8) patient of 19 patients in the postmenopausal period was evaluated as good and very good in for the aesthetic panel evaluation. There was a statistically significant difference between the premenopausal and the postmenopausal periods ($p<0.05$). After all their treatments were completed patients was were asked for satisfaction. 19 patients (59.4%) very good, 9 patients (28.1%) were good, 3 patients (9.4%) were moderate, and 1 patient (3.1%) considered poor. A total of 28 (87.5%) patients evaluated symptoms of satisfaction.

Conclusion: Our study reported a big satisfaction for our patients and to be freed from the discomfort given the macromastia with a sense of relief at being gained to health conserved breast from both breast cancer independently of the aesthetic results.

Keywords: Macromastia, breast cancer, aesthetic evaluation

SS112-Survival Affecting Factors in Octogenarian Breast Cancer Patients

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Objective: The aim of our study is to evaluate the factors affecting survival in patients with breast cancer over the age of 80. Material-Method: Between 2011 and 2017, 34 female patients who were admitted to the Radiation Oncology Clinic of SBU İstanbul Training and Research Hospital who survived over 80 years and over 6 months, were evaluated. Last followed in December 2017.

Materials and Methods: Mann-Whitney U test in the analysis of quantitative data, chi-square test in the analysis of qualitative data, Cox regression analyses with single variables and multivariate were conducted in SPSS 17.0 program. $p<0.05$ significant.

Results: We evaluated patients as ex and survivors by dividing them into two groups. The median age of patients with ex was 85.33; the survivors were 81.86 ($p=0.018$). Placement of the tumor, histology, type of surgery, ER, PR, cerb-B2, administration of chemotherapy, Ki-67 ratio in terms of statistical significance was not found. In patients with ex, the tumor diameter was greater than 2 cm ($p=0.025$). Radiotherapy ($p=0.038$), lack

of metastasis ($p=0.002$) had a positive effect on survival. Survival was poor in patients higher than CCI 6 ($p=0.037$). The most common metastasis site was bones and lungs. Median overall survival was 38 months and median disease-free survival was 31 months. In the univariate analysis age ($p=0.027$; HR: 1.164) and CCI ($p=0.010$; HR: 2.355) were found to have prognostic importance. In Multivariate analysis, CCI ($p=0.021$; HR: 2.141) as an independent prognostic factor affecting survival.

Conclusion: Breast cancer is the most common cancer in women and is expected to be seen at an increasing rate until the age of 80. Important comorbidities affect life expectancy and being able to tolerate adjuvant treatments. Since patients were neglected to consult the doctor, tumor diameter was determined to be greater than 2 cm ($p=0.025$). In octogenarians, surgical treatment should be considered, although comorbidities and limited life expectancy may be prohibitive. There were 23 (68%) patients who underwent mastectomy, 8 (23%) patients who underwent biopsy, and 3 (9%) patients who underwent BCS ($p=0.988$). Octogenarians tolerate hormonal therapy well, 28 (82%) patients have been treated with aromatase inhibitors. Healthy elderly patients can benefit from chemotherapy, but at the same time, treatment-related toxicities may be encountered. Single agent chemotherapy and/or cytotoxic agents can be used at reduced doses. In our study, systemic chemotherapy was applied to 5 (15%) patients. Trastuzumab was the only agent in this chemotherapy. Octogenarian patients tolerate radiotherapy and receive a regional benefit. Curative radiotherapy was applied to 22 (65%) of our patients ($p=0.038$). CCI found to be the only independent prognostic factor affecting overall survival in our patients ($p=0.021$). We thought that, during the treatment of breast cancer in octogenarians, the less patients additional illnesses the better survival of breast cancer.

SS113- Evaluation of Mutation Types with Clinicopathological and MRI Features in Breast Cancer Patients with BRCA1 and BRCA2 Mutations

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Objective: We aimed to evaluate the difference in clinicopathological and MRI findings in patients with breast cancer diagnosed with one of the BRCA1-2 mutations.

Materials and Methods: Six BRCA1 gene mutant and 7 BRCA2 gene mutant cases diagnosed with breast cancer were included in the study. Age, tumor size, hormone receptors, histopathologic stage, Ki-67 value were recorded. Two radiologists evaluated MRI findings retrospectively according to the 5th edition of ACR BI-RADS. Consensus was achieved in case of non-compliance. Dynamic contrast-enhanced breast MRI examinations were obtained with 3.0 Tesla MRI (Verio, Siemens, Germany). SPSS25 program was used. The analysis was evaluated at 90% confidence interval and 10% significance level.

Results: Mean age was 38.5 (SD: 5.4) and mean tumor size was 4.29 cm (SD: 2.5). BRCA1 mutant patients were younger than BRCA2 mutant patients ($p=0.05$). Ki-67 index was higher in BRCA1 mutant group ($p<0.10$). Four triple negative and 1 Her2 tumor were assessed in BRCA1 group; Of the BRCA2 group, 5 had luminal B, 1 had Her2 tumor, 1 had triple negative tumor and the distribution was statistically different ($p=0.024$). Estrogen receptor (ER) was negative in 100% of BRCA1 group while ER was negative in 71.4% of BRCA2 group. The difference was statistically significant ($p=0.021$). Also there were statistically significant differences in tumor shape, margin, contrast enhancement pattern and location on MRI exams ($p<0.10$). Round shape, circumscribed margin and peripheral enhancement in noted in BRCA1 group. Inversly, irregular shape, non-circumscribed margin, homogeneous-heterogeneous contrast enhancement were noted in BRCA2 group. The tumors were located posteriorly in BRCA1 group, whereas no posterior localization was found in BRCA2 group.

Conclusion: In BRCA1 group, benign morphologic features are observed on MRI, but they might be clinically aggressive. The difference in tumor localization between two genetic subtypes is remarkable and might be important in screening.

SS116-The Effect of Breast Cancer Diagnosis on Dietary Habits: A Controlled Study

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Objective: The study aims to determine the relationship between dietary characteristics of breast cancer patients and tumor.

Materials and Methods: Cases with breast cancer treatment in remission were included in the study group and randomly selected healthy women were included in the control group. Demographic (gender, age, marital status, educational status) and anthropometric characteristics (height, weight, body mass index (BMI)) were recorded face to face with all women included in the study. The frequency of nutrient consumption was questioned in order to determine the daily average amounts of energy and nutrients taken in the diet and exercise status was questioned to determine the frequency of physical activity.

Results: In the study group (n=98), the mean follow-up period was 45 months (± 31.7 months) with a median age similar to those in the control group (n=85) [47.5 (24-79) vs. 47 (23-79) years]. There was no significant difference in the body mass indexes of the two groups ($p > 0.05$). In patients with breast cancer, mean carbohydrate percentage from daily energy intake was lower ($p = 0.00$), while fat amount ($p = 0.00$), fat percentage ($p = 0.003$), monosaccharide ($p = 0.00$), glucose ($p = 0.007$), fructose ($p = 0.002$), omega3 (n3) ($p = 0.013$), saturated fat ($p = 0.57$), monounsaturated fat ($p = 0.00$), vitamin A ($p = 0.50$), vitamin C ($p = 0.42$), vitamin E ($p = 0.49$), vitamin B6 ($p = 0.34$), biotin ($p = 0.10$) and copper ($p = 0.02$) values were higher and the results were statistically significant ($p < 0.05$). It was found that 59.8% of the breast cancer patients had more exercise, but the effect of exercise on BMI was not significant ($p > 0.05$). No significant correlation was found between the receptor positivity, histological subtype, Ki 67 positivity rate and the amount of nutrient consumption ($P > 0.05$). Recurrence was observed in 7 patients (7.1%) during the follow-up period and hormone receptor levels (ER) and vitamin B2 intake in the multivariate reduced model (accuracy 93.9%) were inversely related to the recurrence of the disease ($p = 0.02$).

Conclusion: No relationship was found between the dietary habits of breast cancer patients and the characteristics of the tumor. While the percentage of carbohydrate taken with daily diet was lower in breast cancer patients, total fat amounts taken with diet, n3, saturated fatty acid, monounsaturated fatty acid, monosaccharide, glucose, fructose, water-soluble fiber, vitamin B6, biotin and copper values were found to be higher. Further studies are needed for vitamin B2 deficiency in patients with recurrence.

SS119-The Knowledge and Attitude of Men towards Breast Cancer Applying to A State University Medical Faculty Hospital in Istanbul

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Objective: Breast cancer is one of the most important diseases of women of childbearing age. The disease process is usually experienced with a partner. In this process, the patient expects positive support from the spouse. In our study, it was aimed to obtain information about the knowledge and attitudes of volunteer men who applied to the hospital for any reason.

Materials and Methods: This descriptive study was conducted with men who has no spouse or first-degree relatives that diagnosed with breast cancer in İstanbul in 2018. Data were collected through a face-to-face interview with a questionnaire specific to the research. In the questionnaire (49 questions), there were some questions related with sociodemographic characteristics and knowledge and attitude about breast cancer. Statistical significance level was accepted as $p < 0.05$.

Results: In the study, 222 men (mean age: 35.89 ± 10.5 years, min: 18-max: 63) were interviewed. Sixty-nine percent of them were married. One per three were university graduates, 37.8% were high school graduates, 13.1% were secondary and 15.8% were primary school graduates. Forty-three of participants said that "Breast cancer is a disease specific to women". Only 65.8% of the men said that "Breast cancer can be diagnosed in early stage". This ratio was increased as the education level increased ($p = 0.001$). Also 71.2% of participants emphasized that breast cancer is a treatable disease, rates of this response increased with higher level of education ($p: 0.018$). To the proposition "Breast cancer affects fertility.", 56.8% of the participants answered "I do not know". Ratio of answer of "breast cancer does not affect fertility" was directly proportional with the monthly income level ($p: 0.038$). Eighteen percent of men said that breast cancer disrupts a woman's sexual life. Twenty three percent of participants believed that every woman with breast cancer undergoes mastectomy. This belief decreased as education level ($p: 0.009$) and monthly income ($p: 0.035$) increased. It was found that 32.4% of males thinks breast cancer definitely causes aesthetic deformation. This belief was inversely proportional with monthly income level ($p: 0.025$). Only 62.6% of participants declared that if their spouse, mother or lover had breast cancer, they would not conceal it from people around them. Participant were more likely to conceal this situation as their educational level ($p: 0.011$) and monthly income level ($p: 0.002$) decreased. Nearly half of the men in this study declared that they would marry with a woman with breast cancer or had a mastectomy operation (45%).

Conclusion: It was found that a significant proportion of men did not have sufficient and accurate knowledge about breast cancer. In addition, attitudes such as concealing breast cancer of women and not marrying a woman with breast cancer may be an indicator of stigmatization. As a fact high knowledge scores associated with more positive attitudes. If it is aimed to increase support of men for women who are dealing with breast cancer, it is recommended that breast cancer awareness activities should be prepared to include men in order to increase their knowledge and to change their attitudes into a more positive aspect.

Keywords: Sexual partner sexuality sexual life fertility education level

SS120-THE Effect of Immunosuppressive Treatment on Progression-Free Survival in Idiopathic Granulomatous Mastitis; 10 Years Experience of Uludağ University Breast Surgery Clinic

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Objective: Idiopathic granulomatous mastitis (IGM) is an autoimmune disease that can be confused with breast cancer and is characterized by a rare progressive inflammation of the breast. Since the etiology in IGM treatment is not clearly defined, directed diagnosis and treatment is lacking. The aim of this study was to investigate the effect of surgical and medical treatment approaches on disease relapse and survival in IGM.

Materials and Methods: 79 patients who were treated and followed-up with the diagnosis of IGM between 2007 and 2019 at the Breast Surgery Clinic of Uludağ University were included in the study. Patients' demographic characteristics, admission complaints, operation and pathology notes, and treatment protocols applied during the follow-up were noted. The values were analyzed by SPSS 18TM.

Results: All 79 patients were female and the mean age was 38.5 ± 9.5 years. While 55 patients (70%) had no additional disease, 22 patients (28.6%) had at least one concomitant disease. One (1.3%) patient had invasive ductal cancer, and one (1.3%) patient had ductal carcinoma in-situ. Twelve (15.6%) patients presented with wound discharge, fistulized abscess, and abscess drainage was performed. Wide local excision was performed in 9 (11.4%) patients, vacuum assisted closure system in 15 (19%), segmental mastectomy in 10 (12.7%) and mastectomy in 2 (2.5%) patients. The median session value of the patients who received vacuum-assisted treatment was 2 (range: 0-8). Recurrence was observed in 39 (49.4%) patients during the follow-up period. The disease was treated with antibiotics in 29 (36.7%) patients, steroids in 22 (27.8%) patients and immunosuppressant drugs in 28 (35.4%) patients. Immunosuppressant treatment was planned with methotrexate in 1 patient and azothiopyrine in 27 patients. In total, 42 (53.2%) patients were given steroid treatment and 29 (36.7%) of them received high dose treatment. The median value of disease-free survival (DFS) was 9 months (range: 2-148 months), and the median value of progression-free survival (PFS) was 16 months (range: 1-88 months). When the PS values were examined according to antibiotic, steroid and immunosuppressant treatment protocols, higher PS was observed in the patients receiving immunosuppressant treatment (median 13.5 months at 95% CI, 1-26 months, $p=0.291$). The median PS values of the immunosuppressant treatment group were found to be high in the progressive patients followed up without surgery (median 3.8 months at 95% CI, 0-36 months, $p<0.001$).

Conclusion: In our study, symptomatic IGM compromised of the fertile and young female patients with a history of birth within the last 5 years. Although PS values differed between the groups examined, it was observed that the PFS rates of the patients receiving immunosuppressant treatment were significantly longer than the patients who showed progression in the non-operative period and those who received antibiotic and steroid treatment in the postoperative period. Azothiopyrine as a single agent and in combination with steroid therapy is effective in steroid dose tapering and may increase the success of the treatment. Surgery should be performed in selected patient group, which frequently relapsed and resistant to medical treatment.

SS121-Treatment Approach in Patients with Phyllodes Tumor: Analysis of 52 Patients

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Objective: Phyllodes tumor is fibroepithelial neoplasm of the breast and constitutes 0.9% of all breast tumors. In this study, we aimed to evaluate the clinicopathological features of the phyllodes tumor subtypes and the results of the surgical method.

Materials and Methods: The patients' demographic data and clinical findings, diagnostic and surgical treatment methods and follow-up results of histopathological subgroups of phyllodes tumor were retrospectively analyzed.

Results: 52 patients were enrolled. Their median age was 43 years. 41 patients underwent wide local excision, 6 patients underwent simple mastectomy, 3 patients underwent modified radical mastectomy, 2 patients underwent subcutaneous mastectomy. In total, 27 (51.9%) patients had benign disease, 15 (28.8%) had borderline disease and 10 (19.2%) had malignant disease. Second surgery was performed in 4 patients due to inadequate surgical margins. Two patients had local recurrence and one had metastatic disease.

Conclusion: Phyllodes tumors are rare tumors seen at a younger age than adenocarcinomas. The main treatment of phyllodes tumors is surgical excision and the most remote negative margin should be provided. Since local recurrence is the most important problem in benign and borderline tumors, close postoperative follow-up is necessary. Malignant phyllodes tumors should be monitored for distant metastasis.

Keywords: Phyllodes, benign, borderline, malignant, breast