particularly in HER2 positive group (35.8%) (p=0.043). 39.9% of cases with pre-treatment positive lymph nodes showed complete response. There was a change in the histological type in 20.1% (p<0.001). Significant down-grading was seen in 59% (p<0.001). ER status changed in 3% of cases. PR and HER2 status showed significant changes post-treatment in 11.2% and 5.9% of the cases respectively, (p<0.001). Patients with luminal cancer showed better overall survival (p<0.001).
Conclusion: Significant changes in tumour morphology, grade and marker expression occur following NACT. Pathological complete response was achieved in more than fifth of cases especially with HER2 positive status. We recommend o repeat testing of hormone receptors and HER2 on residual tumours. This can provide alternative treatment options for those patients.

PS-01-007
Correlation between PD-L1 expression and clinicopathological characteristics in triple-negative breast cancer patients
N. Basheska*, B. Ognenoska-Jankovska
*Department of Histopathology & Clinical Cytology, University Clinic of Radiotherapy & Oncology, Ss Cyril and Methodius University Faculty of Medicine, North Macedonia

Background & objectives: While immunotherapy is emerging as an effective treatment option for advanced triple-negative breast carcinoma (TNBC) patients, the clinicopathological significance of PD-L1 expression in TNBC remains unclear. Our objective was to investigate the association between PD-L1 expression and clinicopathological characteristics in TNBC.
Methods: The study group comprised 47 TNBC patients in which PD-L1 status was evaluated by immunohistochemistry with SP142 assay on the Ventana BenchMark. All PDL1(+) tumour-associated immune cells (IC) were quantified as % of the tumour area. Tumours were classified as PD-L1(+)(≥1%) or PD-L1(-)(<1%). The statistical significance of the correlation between PD-L1 status and clinicopathological characteristics was determined by chi-square test.
Results: PD-L1(+) were 24(51.1%) of the 47 TNBC patients whose median age at diagnosis was 59 (range, 39-79). 53.5%(23/43) of the primary and 25%(1/4) of the metastatic TNBC cases were PD-L1(+). 21(87.5%) of the PD-L1(+) TNBC had IC1(≥1 and <5%), 2(8.3%) had IC2(≥5 and <10%), and 1(4.2%) had IC3(≥10) score. The PD-L1(+) status significantly associated with high histological grade (G3, P=0.022), and higher proliferative index (Ki-67>35%, P=0.004), while the correlation with larger tumour size (>2 cm, P=0.055) did not reach statistical significance. No significant relationship was found between PD-L1 status and other variables such as patients` age, postoperative stage, tumour status, lymph nodal status, tumour type, vascular invasion, and p53 expression.
Conclusion: Our preliminary results suggest that PD-L1 expression is associated with several high-risk clinicopathological parameters in TNBC patients. Further larger studies are warranted to clarify the clinical relevance of PD-L1 expression in TNBC patients.

PS-01-008
The significance of tumour budding in breast carcinomas and its relationship with E-cadherin, CD44 and CTLA-4 expressions
T. Bolme Savli*, H. Pasaoglu, A. Muhammedoglu, T.C. Savli
*Health Science University, Bagcilar Training and Research Hospital, Department of Pathology, Turkey

Background & objectives: Tumour budding(TB) (isolated <5 tumour cells at invasive edge)are thought to be effective in prognosis in breast carcinomas(BC).We aimed to investigate TB in BC using E-cadherin that provides cell-cell interaction,CD44 as stem cell marker and CTLA-4 receptor as self-tolerance marker.
Methods: 179 BC patients (172 invasive ductal, 7 metaplastic) included. For each case, buds were counted at x200 magnification. 90% for E-Cadherin and 10% for CD44 were regarded as positive staining cut-offs. Staining intensity and percentage of CTLA-4 in bud and bud microenvironment lymphocytes were evaluated. Tumours were separated into low (<5) and high bud groups (≥5) according to median bud number.
Results: High bud tumours were likely to have lymphovascular (p= 0.001), perineural invasion (p<0.001), higher pT stage(p=0.025). Tumour bud number is correlated with higher metastatic lymph node number (p<0.001) and tumour size (p<0.01). No significant relation was found between number of buds and peritumoral lymphocytic reaction, immunohistochemistry based molecular subtyping, E-cadherin, and CD44 staining (p>0.05 for all). E-cadherin was significantly lost in buds in regard to corresponding tumour (p<0.001), while CD44 staining pattern is preserved (p = 0.76). In high bud tumours, CTLA-4 staining percentage of lymphocytes in bud microenvironment was found to be significantly higher (p =0.026). Every increase in tumour bud number, decreases overall survival risk 1.07 times (1.01-1.12 95%CI, p=0.013).
Conclusion: Tumour bud is a poor prognostic factor in breast carcinomas. Increased CTLA-4 can block antitumour response, causing an increase in the number of buds. Anti-CTLA-4 immunotherapies may be beneficial in patients with high bud detected breast carcinoma.

PS-01-009
A dynamic macrophagic environment in xanthogranulomatous mastitis: a broader clue to xanthomatous diseases pathophysiology and clinical evolution?
L. Campos Clemente*, M. Marques-Piubelli, M. Balancin, L. Reis, V.L. Capelozzi
*University of São Paulo, Brazil

Background & objectives: Xanthogranulomatous mastitis is an inflammatory condition. Usually no immunohistochemistry (IHC) characterization is performed in routine surgical pathology. In this study, we explored by IHC the macrophagic polarization status of M1 and M2 subtypes.
Methods: A retrospective single-institution case retrieve was performed from the archives. IHC was performed for CD68, Arginase I, Arginase II, NOS-2, and TGF-Beta. Sequential 400x images were acquired through a microscope coupled camera and quantified through an optical threshold method in ImageJ for each marker. Statistics were executed on SPSS 25 (ANOVA and Spearman's test), p-value less than 0.05 was significant.
Results: We reviewed 11 cases. All patients were female, median age of 56,5 years (29-72). Seven (63%) cases were radiologically described as an irregular nodule/asymmetry, while 4 (36%) as circumscribed nodule. The mean ratio of IHC stain was: Arginase I (0.80), Arginase II (0.70), NOS-2 (0.85), and TGF-B (0.60). M1 polarization elements (ArgI, II and TGF-B) were correlated (p=0.005 for ArgI-ArgII and p=0.001 for TGF-B-ArgI/II). Both M1 and M2 surrogate markers were expressed in all cases, characterizing a bipolar macrophagic activation status. No significant expressed in all cases, characterizing a bipolar macrophagic activation status. No significant correlation was evidenced between macrophage status and radiological presentation, necrosis or epithelioid giant cells.
Conclusion: XM is an uncommon diagnosis and this is the first attempt at classifying MC in indexed English-language literature. The bipolar status may translate as the destructive and reparative dynamic of lesions, evoking a slow-progressing evolution until reparative pole is reached.