

suggests that in pathological complete responders (CR) and luminal A subtype locoregional radiation therapy may be avoided. Hence we audited LABC patients treated over a 6 year period to correlate the pathological response and intrinsic subtype to LRR.

Materials/Methods: Consecutive patients of LABC who underwent NACT (taxane and or anthracyclines based) followed by definitive surgery and RT during the period January 2007 to December 2012 were the subject of this analysis. The pathological response to NACT in tumor as well as axillary nodes [complete response (pCR), partial response (pPR)] and the intrinsic subtype of tumor (Luminal A, Luminal B, Her-2 type, triple negative) was correlated with patterns of locoregional recurrence by chi square test and Cox-regression tests at a median follow-up of 48 months.

Results: Among 206 patients, the median age of patients was 46 years (range 24-81 years), 46% were premenopausal, and 54% postmenopausal, 42% right sided and 58% left sided. The clinical prechemotherapy status of tumor and node at presentation was 15% T2, 40% T3, 45% T4 (9% T4a, 35% T4b, 1% T4c) 8% N0, 42% N1, 41% N2, 9% N3. The intrinsic subtype of our population at presentation was Luminal A (16%), Luminal B (23%), Her-2 Type (23%), triple negative (37%). The overall pCR rate to NACT in tumor and in node was 31% and 45%. The pCR rate in tumor according to intrinsic subtype was 26%, 23%, 39% and 31.5% in Luminal A, Luminal B, Her-2 Type and triple negative type respectively. The pCR rate in node was 26%, 38%, 41.6%, and 59% in Luminal A, Luminal B, Her-2 Type and triple negative type respectively. At a median follow-up of 48 months (interquartile range 24-64 mo) the overall LRR was 7.2% (3.3% chest wall, 1.9% ipsilateral axilla, 1.9% ipsilateral supraclavicular fossa). All chest wall recurrences were in Her-2 and triple negative and recurrences in ipsilateral axilla and supraclavicular fossa were in triple negative and luminal B subtypes ($P = ns$). T4b had a higher propensity of chest wall recurrence. Pathological response did not affect LRR ($P = ns$). LRR was an independent predictor for overall survival in spite of adjusting for distant metastases (HR 4, $P = 0.000$).

Conclusion: The overall LRR is 7.2% and is predominantly seen in Her-2 neu, triple negative and luminal B subtypes. The intrinsic subtype and pathological response did not affect LRR.

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Predicting Tumor Stage (pT) Using Preoperative FDG Positron Emission Tomography Uptake in Patients With Invasive Ductal Carcinoma of the Breast

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Purpose/Objective(s): To predict pathologic tumor stage (pT) using pre-operative tumor FDG PET uptake in invasive ductal breast cancer (IDBC).

Materials/Methods: Fifty-eight tumors in 56 breast cancer patients with pre-operative FDG PET images were included. Patients with non-ductal histology, excisional biopsy, multifocal tumors, T3/T4 tumors, and those who received pre-operative chemotherapy were not included. Median age was 51 (23-76). Surgical procedure was breast conserving surgery in 36 (62%) patients and modified radical mastectomy in 22 (38%). Median tumor size was 22 mm (9-47 mm). pT stage was T1 in 22 (38%) patients and T2 in 36 (62%). Thirty patients had lymph node metastasis (T1: 7, T2: 23). Treatment planning system was used to calculate Standardized Uptake Value covering the largest pathologic tumor dimension (SUV-TmR) and SUV_{max}. Statistical analyses were performed using predictive analytics software. The ability of SUV_{max} to predict pT stage was analyzed by a Receiver Operating Characteristics (ROC) curve analysis. While evaluating the area under the curve, a 5% type-I error level was accepted a statistically significant predictive value of the test variables. The relation between SUV_{max} and pT stage was analyzed using Fisher's exact test.

Relation between tumor size and SUV-TmR and SUV_{max} was analyzed using Pearson Correlation test.

Results: Area under the ROC curve was 0.712, and the best cut-off SUV_{max} to predict pT stage was 3.15. SUV_{max} was significantly higher than 3.15 in pT2 tumors ($P = 0.028$). SUV_{max} was ≥ 3.15 in 34 of 36 (94%) pT2 tumors. There was a linear correlation between tumor size and both SUV-TmR and SUV_{max} ($P = 0.001$, $P = 0.001$). One unit increase in SUV_{max} and SUV-TmR were corresponding to 1.9 mm and 5.7 mm increase in tumor size, respectively.

Conclusion: Preoperative FDG PET tumor uptake can be used to predict pathologic T stage in IDBC. Further studies with larger patient number are needed.

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Breast Phyllodes Tumor—A Uni-institutional Analysis of the Epidemiology and Management Over the Past 20 Years

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Purpose/Objective(s): Evaluate prognostic factors of phyllodes tumors, and impact of different types of treatment. Secondly, we assessed local control, outcomes, distant metastases rates, and overall survival of patients treated in this institution over the past 20 years.

Materials/Methods: A hundred twenty four female patients treated at our institution were retrospectively analyzed from 1995 to the year 2015. Univariate analyzes included chi-square test, Fisher, and unpaired t-test. Prognostic factors were compared using Kaplan Meier and log rank test.

Results: The median follow up and age were 16 years (193 months) and 40 years, respectively. The median age of these was 40 years. Seventy four percent were premenopausal and 82.3% had no family history of breast cancer. Most had isolated tumor (47.6%) and in the left breast (51%), with absence necrosis (75%) and low grade - Grade 1 - (58.1%). Regarding treatment, as already noted in the literature, most conservative surgery was performed (54.8%). However, in patients with borderline or malignant tumors, mastectomy rate remains higher than the segmental resection, but the adjuvant treatment rate remains very low, in the case of radiation therapy (2.4%). Surprisingly, local control remained high in this type of surgery without adjuvant treatment, with an actuarial rate of 95% and 85% in 5 and 10 years, respectively. Variables that had real impact on survival were hormonal status - premenopausal ($P = 0.067$), histological grade - Grade 1 ($P = 0.017$) and size - larger than 5 cm ($P = 0.01$).

Conclusion: The phyllodes tumor is a rare neoplasm and there is still little information about its epidemiology and prognosis. In our study we observed that the hormonal status, histological grade, and size larger than 5 cm had great impact on survival. Despite the current histological classification, that borderline and malignant tumors present a more aggressive feature for local recurrence and, less possibility, distant metastases - surgery (mastectomy - in this case) has a great local control. Thus, we suggest that this treatment is sufficient, requiring no adjuvant treatment and, therefore, avoiding unnecessary toxicity and side effects in these young patients, mostly

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Adjuvant Trastuzumab Reduces Locoregional Recurrence in Women Who Receive Mastectomy for Early-stage, Her2-Positive Breast Cancer Without Radiation Therapy

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