Conclusion: The 4.6% of local recurrence rate of PMRT cohort registered from 2005 to 2013 was lower than 13.1% (12/92) of non-PMRT cohort registered from 1990 to 2000.

EP-1165

Impact of nodal status on clinical outcome of breast cancer patients: a monoinstitutional experience

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Purpose or Objective: The aim of our study was to determine the impact of nodal status and other prognostic factors on clinical outcome of patients with breast cancer treated with surgery and adjuvant radiotherapy.

Material and Methods: A total of 774 breast cancer patients treated between 2001 and 2013 were retrospectively analyzed. Qualitative and quantitative characteristics were summarized as frequencies and percentages, average and standard deviations. The rates of Overall Survival (OS), disease free survival (DFS), and loco-regional recurrence (LR) were calculated at 36 and 60 months with the Kaplan-Meier method. Multivariate analysis was also performed and a p value of 0.05 was considered statistically significant.

Results: We identified 774 patients treated with adjuvant RT of which 595 patients (75.4%) without nodal involvement (pN0), 118 (14.9%) pN1-3 and 61 (7.75%) with more than 3 positive lymph nodes (pN>3). In our sample, supra-clavicular region was irradiated in 62 patients (13 pN>3, 17 pN1-3, 32 pN0). Median follow-up was 36 months (range 1-144 months). There were 14 cases of LR, of which 13 in pN0 and 1 in pN1-3 patients. A total of 31 patients developed distant metastases (48.4% in pN0, 19.4% in pN1-3, 32.2% in pN>3 group). The mortality rate was of 2.8% (68.1% pN0, 18.2% pN1-3 and 13.6% pN>3). There were no statistically significant differences in terms of OS, DFS and MFS among the three treatment groups. Multivariate analysis showed that clinical outcomes were significantly correlated with margin status (p-value: 0.00), T-stage (p-value: 0.053), Her2-neu gene amplification (p-value: 0.00), Ki-67 (p-value: 0.00) and SCRT (p-value:0.00). Variables such as age, surgery, ER and PgR expression and grading, were not significant.

Conclusion: In our study we observed higher rates of events in pN0 and pN1-3 patients, but none statistically significance was demonstrated between pN0, pN1-3 and pN>3 in terms of OS, DFS and MFS. Furthermore pN0 was in this experience the bigger group and this certainly influenced statistical analysis. In breast cancer, nodal status plays a key role both in the prognostic evaluation and in the therapeutic choice, and the clinical outcome of patients pN1-3 is comparable to pN>3 patients; so in this group (pN1-3) it is also necessary the evaluation of other prognostic factors such as receptor status, Ki 67 and surgical margins. Nodal status alone seems incapable to really guide treatment choice, with particular regard to the SCRT appropriateness.

EP-1166

Management of chest wall irradiation in patients with breast reconstruction

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Purpose or Objective: The aim of this study was to evaluate treatment related complications and patient satisfaction in women with locally advanced breast cancer who received post-mastectomy radiation therapy after breast reconstruction.

Material and Methods: Between 2009 and 2014, 65 patients, median age 48 years, with locally advanced breast cancer who underwent mastectomy with breast reconstruction in the same time, received post-mastectomy radiation therapy. Two patients received excision of local recurrence, 46 patients nipple sparing mastectomy, 10 skin sparing mastectomy and 7 modified radical mastectomy. Post-mastectomy radiation therapy was delivered to the chest wall with a dose of 50 Gy in 25 fractions over 5 weeks (57 with 3Dconformal RT and 8 with tomotherapy).

Results: A patient interrupted radiation therapy to 20 Gy for severe acute toxicity with rejection of implants (delayed removal of the prosthesis). Acute dermal toxicity G2 for erythema, telangiectasia (1 patient) and edema was relieved in 26 patients, G1 toxicity in 36 patients, G0 in 2 patients and G3 in 1 patient. Two patients in systemic progression were not considered for local evaluation. At median follow-up of 35 months: 43 patients presented late toxicity G1 due to hyperpigmentation, edema, periprothetic fibrosis. 7 patients referred sense of tension or pain and not satisfaction about the final aesthetic result. Two patients presented arm lymphedema. Two patients received replacing of the implants after 36 months due to contraction, encapsulation, dislocation, swelling.

Conclusion: Radiotherapy can be safely delivered after breast reconstruction, with a low complication rate and good patient satisfaction. Further randomized studies are needed to better define the optimal management of breast reconstruction and post-mastectomy radiation therapy.

EP-1167

Radiation therapy and breast reconstruction: outcomes and complications in our experience

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Purpose or Objective: The impact of adjuvant therapy on the surgical outcomes following breast reconstruction is poorly understood. The purpose of this work is to evaluate surgical outcomes following autologous and prosthetic reconstruction in the setting of post-mastectomy radiation therapy (PMRT) and adjuvant chemotherapy. We assessed the outcome and complications of irradiated patients in our department.

Material and Methods: From May 2015 to July 2015 we analyzed acute, late toxicity and cosmetic results of 76 patients with a median age of 50 ± 10 years undergoing mastectomy with immediate recostruction with prosthesis (79.7%), autologous technique (7.2%) or expander-implant (13%) following adjuvant radiotherapy. 24 patients underwent to Nac- Sparing Mastectomy, 10 of witch with periareolar pexy. 31 patients underwent to Skin reducing Mastectomy and 5 patients to Skin Sparing Mastectomy. The radiotherapy dose was 50 Gy to chest wall and supraclavicular limphnodes when indicated with 6 MV X-ray delivered with Linac (60pt), or with tomotherapy (16pt).

Results: With a median follow-up of 25±24 months utilizing RTOG toxicity scale we observed a grade I acute toxicity in 74.6% of patients, grade II in 6% of patients while in 19.4% of patients was not observed any sign of toxicity. Late toxicity was not observed in 68.7% of patients while in 28.4% of patients a grade I late toxicity was noted. No post-operative complications was observed in 62.3% of patients while in 15.9% a capsular contracture was responsible in 20.3% of patients of explantation of prosthesis. None of patients developed post-operative skin ulcers. Cosmetic results was analyzed with Harvard Scale and was excellent in 4.5% of patients, good in 32.8%, fair in 16.4% and poor in 46.3%. The chi-test showed no correlation between early or late toxicity or cosmetics results with type of surgery (p>0.1). Univariate