with IDC and therefore a lower possibility of breast conserving surgeries. The impact of these results in terms of progressive free and overall survival for patients with ILC will be presented.

355 POSTER

Does placement technique affect the early complications of mammosite™ brachytherapy? Magee-Womens Hospital experience

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Brachytherapy has been used as an alternative to whole breast radiation for adjuvant treatment of early breast cancer following breast-conserving surgery. Open cavity (time of lumpectomy) and closed cavity (ultrasound guided) techniques have been described for placement of Mammosite™-catheter to deliver accelerated partial breast brachytherapy (APBB). Herein, we retrospectively analyzed our registry data and report early complications of both techniques.

Eighty-four early stage breast cancer patients have undergone APBB since 2002. An open technique was utilized in 70 patients (mean age is 64 (range 45–89) years) and closed technique was used in 14 patients (mean age is 62 (range 49–78) years). A dose of 34 Gy was prescribed to 1 cm from the balloon surface using ^{192}Ir high-dose rate brachytherapy and was delivered in total of 10 fractions, given twice daily for 5 days. CT was used to confirm that the balloon surface was adherent to lumpectomy cavity and to measure the balloon surface to skin surface. The median minimum distance between balloon surface to skin was 1.4 (0.5 to 4.5) cm in the open technique and it was 1.8 (0.7 to 2.5) cm in the closed technique. Average skin dose was 273 cGy in the open group and it was 255 cGy in the closed group.

More than 50% of tumors were in upper outer quadrant in both groups. Average gross specimen size was 75.8 cm^3 in open group and 88.2 cm^3 in closed group. Re-excision rate prior to placement was 20% (14/70) in the open group and it was 29% (4/14) in the closed group. All patients received antibiotic treatment (7 to 10 days) during the Mammosite™ course. Median follow–up was 12 (4–40) months for open technique and 5 (3–28) months for closed technique.

Table 1: Acute complications of Mammosite™ brachytherapy

	Open technique (n = 70)	Closed technique (n = 14)
Leakage/drainage	2 (3%)	3 (21%)
Abscess	2 (3%)	
Wound infection	2 (3%)	1 (7%)
Balloon rupture	4 (6%)	1 (7%)
Acute skin toxicity grade 2	3 (4%)	1 (7%)

The incidence of persistent seroma (more than 6 months) was 31% (22/70) and aspiration was performed 13 times in 7 patients (10%; 7/70) in the open group. Because the median follow-up for closed group was 5 months it is early to reach any conclusion for persistent and symptomatic seroma differences. Forty-one patients have reached an average of 12 months follow-up since beginning our accelerated partial breast radiation therapy program. The overall cosmesis is excellent in 56% of patients, good in 37% of patients and fair 7% of patients based on the Harvard scale of assessing cosmesis. Despite the short follow-up and small sample size in the study, it seems that the Mammosite™ brachytherapy was well tolerated in patients with early stage breast cancer in both techniques, and overall cosmesis was excellent or good in 93% of patients.

356 POSTER

Different CMF regimens as adjuvant treatment for early breast cancer (EBC) in older patients (pts.): results from the NORA study

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NORA study aimed at investigating modalities of treatment and patterns of relapse in 3500 EBC pts, radically treated with surgery in 77 Italian Hospitals.

Overall, CMF was used in 928 pts (26.4%). We analyzed the main characteristics of the 246 pts (26% of all CMF) aged over 65 yrs (median 70, range 65–82) who received this regimen, as well typology and dose-intensity. The most frequent typology was iv 1.8–28 CMF (65.85%), followed by 1–21 regimen (30.89%), while classical (oral CTX) regimen was chosen only in 3.25% of the pts. In 68% of the cases CMF was followed by endocrine treatment (mainly tamoxifen).

Any CMF was administered mainly in Stage II tumors (70%) and in Node positive pts (56%: 1–21; 64%: 1.8–28). Curiously, 26% of the oncologists choose the 1–21 iv CMF considering it a standard guideline, as for 1.8–28 CMF. The planned treatment was suspended in 40% of classical CMF, in 5.5% of 1–21 CMF and in only 3.5% of the 1.8–28 regimen. Furthermore, treatment was modified (dose reduction or delay) in 11% (1–21) and 26% (1.8–28) of cases, mainly because of mielotoxicity. The administered median dose-intensity of all the drugs, as compared to the planned one, was reduced by 24.1% with classic regimen, by 20% with 1–21 and by 21.6% with 1.8–28 CMF. No substancial difference was noted between the different drugs.

In older breast cancer patients, CMF is widely used and in one third of cases the regimen of choice is the "1–21 iv", inspite of the lack of evidence from clinical trials. Actually drop outs for toxicity and dose-intensity reduction are similar to the better studied 1.8–28 CMF. The Classical "oral" CMF is not easy to manage in older patients.

357 POSTER

Local control, cosmesis and late sequelae following breast conserving therapy: influence of type of tumour bed boost and adjuvant chemotherapy

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Purpose: The aim of this report is to study the influence of type of tumour bed boost and adjuvant chemotherapy on local control, cosmesis and late sequelae in a large cohort of Indian women treated with Breast Conserving Therapy (BCT).

Materials and Methods: During 1980–2000, 1022 pathological stage I/II breast cancer patients (median age 43 years) underwent BCT. This consisted of wide excision, complete axillary clearance, whole breast radiotherapy (45 Gy in 25 fractions) with 6 MV photons plus tumour bed boost either with Low dose rate brachytherapy (LDR) of 15–20 Gy (n = 383), High dose rate brachytherapy (HDR) 10 Gy in single fraction (n = 153) or Electrons 15 Gy in 6 fractions (n = 460); ± systemic adjuvant therapy (SAT). Adjuvant chemotherapy (mostly CMF regimen) was given to 570 women. Median pathological tumour size was 3 cm (1–5 cm). Axillary node metastases were found in 39% women.

Results: The 5 and 10 year actuarial overall survival was 87% and 77% and disease free survival was 76% and 68% respectively. Actuarial 5 year local control rate was 91%. There were no significant differences in the local control between the 3 boost groups. Cosmesis was good or excellent in 78% women. At last follow-up, post radiation worsening of cosmesis over the pre radiotherapy score was observed in 10% women and was similar in the 3 boost groups. Late breast sequelae were observed in 25% women receiving single fraction HDR boost as compared to 13% in LDR ($p = 0.0003$) and 10% in electron group ($p = 0.00009$). In women receiving chemotherapy there was significant worsening in the cosmetic outcome ($p = 0.02$) while the local control and late breast sequelae were comparable.

Conclusion: The late breast sequelae were significantly more in women treated with single fraction HDR implants but the worsening of the post radiation cosmetic score between the 3 boost groups was comparable. Chemotherapy had an adverse impact on the cosmetic outcome but the late breast sequalae and local control rates were however comparable

358 POSTER

A Phase II trial of ultrasound-guided radiofrequency ablation of small invasive breast carcinomas

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Background: Local ablative therapy of breast cancer represents the next frontier in the evolution of minimally-invasive breast conservation therapy. The purpose of this Phase II trial was to determine the efficacy and safety of Radiofrequency (RF) ablation of small (⩽1.5 cm) invasive breast carcinomas.

Material and methods: Sixteen patients with core-needle biopsy-proven invasive breast cancer ⩽1.5 cm in diameter were enrolled in this trial.