Table. adverse events (CTCAE v3.0)

	Grade0	1	2−4	Grade 1 (%)
fatigue	31	20	0	39.2%
nausea	48	3	0	5.9%
vomiting	51	0	0	0
anorexia	45	6	0	11.8%
dermatitis	4	47	0	92.2%
dry skin	48	3	0	5.9%
skin pigmentation	35	16	0	31.4%
Skin depigmentation	51	0	0	0
edema	30	21	0	41.2%
pain	32	19	0	37.3%
pneumonitis	51	0	0	0

5131 POSTER

Hypofractionated radiotherapy after conservative surgery for breast cancer: analysis of acute and late toxicity in a mono-institutional series

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Background: To assess acute and late toxicity after hypofractionated radiotherapy (RT) following breast conserving surgery in a mono-institutional series.
Materials and Methods: A group of 85 women operated by conservative surgery for breast cancer (pT1−2 pN0−1 M0) was treated with postoperative hypofractionated RT to a total dose of 45 Gy in 20 fractions of 2.25 Gy to the whole breast followed by 9 Gy boost in 3 fractions (BED = 55 for acute toxicity, alfa/beta = 10; BED = 78 for late toxicity, alfa/beta = 3). Acute and late toxicity were scored according to the RTOG/EORTC criteria. These results were analyzed and compared with those observed in a group of 70 patients with similar characteristics and treated with RT to the same treatment volumes to a total dose of 50 Gy in 25 fractions followed by 10 Gy boost in 5 fractions (BED = 60 for acute toxicity, alfa/beta = 10; BED = 83 for late toxicity, alfa/beta = 3). Statistical analysis was performed using the chi-square test to compare acute and late toxicity between patients treated with hypofractionation and those treated with conventional fractionation.
Results: Early reactions were observed in 72/85 (85%) patients treated with hypofractionation and in 67/70 (96%) patients treated with conventional fractionation. Acute toxicity was classified as grade 1 in 60%, as grade 2 in 22% and as grade 3 in 2% of patients in the group treated with hypofractionation. Early reactions were classified as grade 1 in 49%, as grade 2 in 41% and as grade 3 in 5% of patients in the group treated with conventional fractionation. The difference between the two fractionation groups resulted to be statistically significant ($p = 0.01$).
Late toxicity was observed in 8 patients (10%) in the group treated with hypofractionation with a mean of follow up of 435 days and in 10 patients (15%) in the group treated with conventional fractionation with a mean follow up of 854 days, respectively. The difference in frequency of late toxicity was not statistical significant ($p = 0.4$).
Conclusions: In our experience, a radiation hypofractionated schedule delivering 45 Gy in 20 fractions offered a significant reduction of skin acute toxicity ($p = 0.01$) and not significant difference of late effects ($p = 0.4$) compared to the conventional schedule. The reduction in acute toxicity in patients treated with hypofractionated RT could be explained by the BED values and by the dosimetric data that are still under analysis and could differ in the two treatment groups.

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Targeted intraoperative radiotherapy and sentinel node biopsy enable breast and axillary lymph node preservation

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Background: The purpose of the study is: 1) to analyse results of the breast conserving treatment (BCT) in patients with breast carcinoma using both intraoperative radiotherpy (IORT) and sentinel node biopsy (SNB) simultaneously; and 2) to estimate breast and axillary lymph nodes preservation with this approach.
Material and Methods: The treatment protocol was approved by Ethical Committee. The BCT using combined SNB, wide local excision (WLE) and IORT was performed in 138 patients who signed the informed consent. Patients with primary tumour $\leqslant 2$ cm and clinically negative axillary lymph nodes were eligible. The SNB was done using isotope-dye technique with preoperative lymphoscintigraphy. The INTRABEAM® PRS 500 system (Carl Zeiss, Oberkochen, G) was used for irradiation of the tumour bed with the dose of 20 Gy (boost; energy 18 keV). After completion of the adjuvant treatment, whole breast external beam irradiation was performed with a total dose of 50 Gy, omitting the tumour bed. Objective computerized aesthetic effect assessment was done using BCCT.core® software (University of Porto, PT). Follow-up time ranged from 9 to 38 months (mean 22 months).
Results: Minor early postoperative complications (reddening of the skin wound; seroma) did not prolong hospitalization. In 14 patients (10%), surgical specimen pathology revealed positive margin. Re-excision of the margins was performed all in of these patients. In one patient mastectomy was necessary because neoplastic cells in re-excison specimen. In 27 (20%) patients (selective) lymphadenectomy was performed following positive SNB. In one patient both positive SNB and positive margins necessitated mastectomy; whereas in another patient after selective lymphadenectomy, mastectomy was necessary because of margins' infiltration by comedo type carcinoma. Altogether breast and axillary lymph node preservation was possible in 108 (78%) of patients. Fifteen patients (11%) had fibrosis of the treated breast quadrant. In patients after breast conservation who reached 1 year follow-up, the BCCT.core® general aesthetic score was excellent in 52%, good in 42%, and fair in 6% of patients. There was neither poor aesthetic outcome. In one patient pulmonary metastases were detected prior to local recurrence in the breast.
Conclusions: The combination of SNB, WLE and IORT is a safe surgical procedure leading both to breast and axillary lymph nodes preservation with improved patients' satisfaction by excellent or good aesthetic effect and shortening the time of treatment in majority of patients.

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Incidence of distant metastasis (DM) in elderly postmenopausal women with operable breast cancer treated with tamoxifen (TAM)

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Background: Breast cancer recurrence risk is greatest during the first 2 years following surgery, and DM recurrences predominate during this early peak (Mansell J et al. *Breast Cancer Res Treat.* 2008; Dec [Epub ahead of print]). DM has been associated with poor survival and breast cancer-related death (Lamerato L et al. *J Clin Oncol*. 2005;23(16S):62s. Abstract 738). Elderly women ($\geqslant 75$ yr) with early breast cancer are often less likely to receive chemotherapy (CT) due to comorbid conditions (pulmonary, cardiovascular), yet they remain at risk for early DM and are good candidates for adjuvant hormonal treatment (Crivellari D et al. *J Clin Oncol.* 2008;26:1972−9; Rao VSR et al. *Int J Cancer.* 2007;120:1155−60).
Methods: We stratified a cohort of 3614 women treated with TAM following surgery for early breast cancer by age, identified CT status, and the incidence of DM and calculated the Kaplan-Meier-estimated 2.5- and 5-year recurrence rates.

	N	Patients with DM, n (%)	CT received, n (%)	CT status unknown, n (%)
All pts	3614	344 (9.5)	713 (21.9)	360 (10)
<75 yr	2992	272 (9.1)	690 (25.1)	248 (8.3)
$\geqslant$75 yr	622	72 (11.6)	23 (4.5)	112 (18.0)

Results: Elderly patients (pts) $\geqslant 75$ yr were less likely to receive CT, and the incidence of DM was higher than in younger pts <75 yr (Table). The 2.5-yr and 5-yr cumulative DM (95% CI) for pts <75 yr vs $\geqslant 75$ yr, respectively, were 4.0% (3.2−4.8) and 8.7% (8.5−10.9) versus 9.0% (6.5−11.5) and 14.8% (11.3−18.3). Of the 344 pts with DM, 75.6% died during follow-up.
Conclusions: Elderly pts with breast cancer are frequently undertreated for their disease, despite being at risk for DM, and are good candidates for adjuvant hormonal therapy. The aromatase inhibitors are superior to TAM, and results from the BIG 1−98 trial show that letrozole (LET) significantly reduces recurrences, regardless of age (Crivellari et al 2008). Early reductions in DM recurrence, as observed with initial adjuvant LET (Thurlimann B et al. *N Engl J Med.* 2005;353:2747−57; Mauriac L et al. *Ann Oncol.* 2007;18:859−67] may translate to the observed survival advantage