supraclavicular and axillary nodes 7 months after PBI in a patient with negative sentinel node. Nine patients developed distant metastases, 16 patients a contralateral breast cancer and 35 patients a second primary cancer. At the last check-up 240 patients were alive: 238 with no evidence of cancer, 2 with metastatic breast cancer. 15 patients died: 4 of metastatic breast cancer, 5 of another cancer, 3 of different causes. The 5-year probability of breast relapse-free survival, nodal relapse-free survival and cause-specific free survival were 98.1% (95% CI: 96.3-100) 99% (95% CI: 97.7-100) and 99.5% (95% CI: 98.4-100) respectively. Acute toxicity occurred in 95 patients and late toxicity in 85 patients. From different risk factors for toxicity (age, tumour size, hormonal therapy, chemotherapy) only tamoxifen, was significant factor for late toxicity (p<0.0001). Cosmetic results were excellent/good in 250 patients, fair in 6, unknown in 4. Overall inter-rater agreement by physicians and patients on cosmesis was good (K value: 0.67).

Conclusions: Our data demonstrate that PBI with $^{192}\text{Ir}$ interstitial multi-catheter HDR brachytherapy is associated with a relapse rate comparable to the best published results and low late toxicity.

Poster Discussion: An anthology of clinical posters

PD-0042
APBI versus whole breast irradiation in women age 70 years or older: a subgroup analysis of a phase 3 randomised trial
I. Meattini$^1$, L. Marrazzo$^1$, C. Saieva$^1$, S. Pallotta$^1$, G. Simontacchi$^1$, V. Scotti$^1$, I. Furfaro$^1$, F. Meacci$^1$, L. Orzalesi$^1$, L. Livì$^1$

$^1$Azienda Ospedaliero Universitaria Careggi, Department of Radiation Oncology, Firenze, Italy
$^2$Azienda Ospedaliero Universitaria Careggi, Medical Physics Unit, Firenze, Italy
$^3$ISPO, Cancer Research and Prevention Institute, Firenze, Italy
$^4$Azienda Ospedaliero Universitaria Careggi, Breast Surgery Unit, Firenze, Italy

Purpose/Objective: Incidence of breast cancer (BC) is increasing in the elderly population because of the increase in life expectancy and the diffusion of screening trials. Even in patients with BC of excellent prognosis, ipsilateral breast tumour recurrence (IBTR) after conservative surgery without adjuvant therapy is still very high. IBTR was reduced by either radiotherapy (RT) or hormonal therapy but to a greater extent by the receipt of both treatments. Whole breast irradiation (WBI) remains the standard of care after conserving surgery but the management of adjuvant radiation therapy in the elderly has become a medical challenge because of the poor compliance of patients to conventional RT. We analyzed the recurrences rate and the safety profile of a subset of patients age 70 years or older of a phase 3 trial comparing APBI and WBI.

Materials and Methods: The trial enrolled 520 women aged more than 40 years affected by early BC, with a maximum pathological tumour size of 25 mm. Patients were randomly assigned in a 1:1 ratio to receive either WBI or APBI using IMRT. The APBI arm received a total dose of 30 Gy to the tumour bed in 5 daily fractions. The WBI arm received 50 Gy in 25 fractions, followed by a boost of 10 Gy in 5 fractions. The primary endpoint was occurrence of IBTR; this trial is registered with ClinicalTrials.gov, number NCT01204895.

Results: A total of 114 patients aged more than 70 years were analysed (58 in the WBI arm, 56 in the APBI arm). Most patients had pathological T1 stage (86%), nuclear grade G1-2 (73.2%), positive hormonal status (94.7%), negative HER2 status (83.3%), and luminal-A molecular subtype (74.6%); all these features were well balanced between the two arms. At a median follow-up of 5.0 years (range 3.4-7.0), the IBTR rate was 2% (one case) in the APBI group and 1.9% in the WBI group (one case). No significant difference emerged between the two groups (log rank test p=0.93). The APBI group presented significantly better results considering acute skin toxicity (p<0.0001). Major recorded events and safety profile of this subgroup of patients were presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Conclusions: Our results confirmed the low rate of IBTR in this subgroup of patients, which could benefit in terms of quality of life in a reduction of irradiated volume. Omission of WBI after conservative surgery in elderly is still controversial, according to the indolent behaviour of BC in these patients. Further investigations are strongly needed to select a subset of tumours of excellent prognosis, such as luminal A, to treat with exclusive APBI or hormonal therapy.

PD-0043
2-year cosmetic outcome of large breastfed women randomized between prone and supine whole-breast irradiation
L. Veldeman$^1$, C. De Sutter$^1$, K. Schiettecatte$^1$, C. Monten$^1$, T. Mulliez$^1$, A. Van Greveling$^1$, B. Speleers$^1$, W. De Neve$^1$

$^1$Ghent University Hospital, Department of Radiation Oncology, Ghent, Belgium

Purpose/Objective: To report 2-year cosmetic outcome of a randomized trial comparing prone and supine whole-breast irradiation (WBI) in large breastfed patients

Materials and Methods: Between December 29, 2010, and December 12, 2012, 100 patients with at least a (European) cup size C presenting for WBI were randomized between supine multi-beam and prone tangential field intensity modulated radiotherapy. All patients were treated to 40.05 Gy in 15 fractions, followed by a boost of 10 Gy in 4 fractions if indicated. Digital photographs were taken in standard conditions before and 2-year after radiotherapy with markers on the nipples, the suprasternal notch and the xyphoid. A photograph was taken with the arms alongside the body one with the arms up. Cosmesis was objectively scored using the commercially available BCCT.core software of the INESC Porto Breast Research Group (1). A subjective scoring was done by 3 observers on a 4-point scale: excellent - good - fair - poor. The difference in cosmesis was analyzed with 0 - no difference or better cosmesis, 1 - cosmesis one category...