Background: To evaluate patient-reported outcomes (PROs) and long-term aesthetic outcome (AO) related to radiotherapy (RT) in the breast-conserving therapy setting for breast cancer over time. To explore the agreement between PROs and AO.

Methods: Patients treated with breast-conserving therapy at one institute between April 2015 and April 2016 were prospectively included in the cohort. The AO was scored by the patient and by the BCCT.core software. Further PROs were measured with the EORTC QLQ-C30, QLQ-BR23 and the BIBCQ. Patients were evaluated at preset time points over two years. First, we assessed the evolution in time of the PROs and AO. Second, we tested the differences in mean scale scores of the PROs between patients with a favourable and an unfavourable AO.

Results: 175 patients were included in the analysis. At baseline unsatisfactory levels were already present for several global, functional, symptom and body image scales. Most unsatisfactory PROs improved significantly up to one year after RT. Fatigue showed a small deterioration at the start of RT, but improved medium thereafter up to one year after RT (mean difference (MD) -7.6. -12.3, respectively and p < 0.001). Cognitive functioning showed a small decrease from the start of RT with no further significant decrease (MD -4.73, -0.21 and p 0.003, 0.894, respectively). Breast symptoms significantly increased during RT but decreased afterwards up to two years after RT.
Results:
Cumulative Incidence of relapse was calculated from first FG. Association between clin-
icopathological subgroups is reported in the table. Semestral hazard rates of relapse in
the three years after FG were: 0.010, 0.053, 0.034, 0.007, 0.039, and 0.038, respectively.

<table>
<thead>
<tr>
<th>Stage at diagnosis</th>
<th>11% ref</th>
<th>17% ref</th>
<th>34% ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>81 (42%)</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Stage II</td>
<td>67 (34%)</td>
<td>28%</td>
<td>17%</td>
</tr>
<tr>
<td>Stage III</td>
<td>9 (5%)</td>
<td>25%</td>
<td>24%</td>
</tr>
</tbody>
</table>

HR status HR negative                                   HR negative
| Stage I           | 13%     | 13%     |
| Stage II          | 16%     | 16%     |
| Stage III         | 17%     | 17%     |

Additional Breast Imaging

59 pts (29%) underwent additional breast imaging over standard recommendation in
the first year after RT. 256P Oncological outcome of fat grafting for breast reconstruction after
breast cancer (BC). FG might express protumorigenic factors or alter radiological
appearance. The high rate of FG indicates the unmet need of breast reconstruction.

Legal entity responsible for the study: Breast Surgery, Chiba Cancer Center Hospital, Chiba, Japan, 2 Breast Oncology, Chiba Cancer Center Hospital, Chiba, Japan

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Conclusions:
Fat grafting (FG) has become widely used in breast reconstruction after
breast cancer (BC). FG might express protumorigenic factors or alter radiological
appearance. The high rate of FG indicates the unmet need of breast reconstruction.


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