percentage of patients can keep their NAC. If the breast tissue and all galactophoric ducts can be separated completely from the NAC, tumour
subcutaneous mastectomy (SCM), conservation of the NAC is feasible even in
large, central and retroareolar tumors. The only condition is that the skin
is not infested by malignancy.

Material and Methods: From July 2003 to April 2006, we performed 109
SCMs on 96 patients. 96 of these breasts showed indications for modified
radical mastectomy (MRM) or ablative simplex. 78 due to invasive carcinoma
(MRM indication) and 16 of whom had extensive DCIS (indication for
simple ablation). At least 33 of the breasts had malignancy within the
areola margin. After dissection of the complete mammary gland tissue,
the skin envelope with the areola is folded inside out and all galactophoric
ducts and any subjacent tissue on the areolar base are precisely dissected
under the surgeons’ visual control. Of this tissue, frozen sections and HE
histopathologic examinations are requested to decide whether the NAC
can be preserved or not.

Results: We found the need to resect the NAC in 13 (12%) of 109
breasts, altering the procedure to a skin sparing mastectomy (SSM).
After a follow-up of 20–54 (median 34) months no recurrence within the
NAC was observed. One local recurrence was detected on the thoracic
wall and 2 of 96 patients developed distant metastases. One death was
recorded. Occasionally, partial necrosis of the nipple occurred, leaving a
depigmentation of the skin but maintaining a good or excellent cosmetic
result in most cases. Necrosis of the NAC which had to be subjected to
surgical intervention occurred in only one patient.

Conclusion: SCM, including NAC conservation, may be performed
according to MRM indications if an intraoperatively frozen section (and
the corresponding HE-histopathology) of the NAC closest tissue is free of
tumor. The remaining contraindications for SCM are: extensive tumor
involvement of the skin, inflammatory breast cancer, and clinical suspicious
nipple. The suggested technique of SCM could supersede MRM and ablative
simplex. Thus, it helps to decrease mutilation in patients especially with
large and/or central tumors.

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Poster
Results of breast conserving treatment including perioperative
HDR brachytherapy boost or including HDR boost following full
teleradiotherapy regimen
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Aim: The comparison of early breast cancer treatment results in patients
receiving HDR brachytherapy boost perioperatively or receiving the boost
after full course of external radiotherapy.

Material and Methods: Between January 1998 and May 2003, 40 breast
cancer patients received intraoperative Ir192 HDR brachytherapy as part of
their breast conserving treatment. The second group of 75 women received
brachytherapy boost after completing full teleradiotherapy regimen. No
statistically significant difference in age, tumor size or pTNM was observed
between these groups. All patients had tumorectomy and axillary lymph
node dissection performed. In the first group, brachytherapy catheters were
implanted during the operation and HDR boost was performed immediately.
Later these patients received full course of teleradiotherapy to the entire
breast via tangential fields to a total dose of 4250 cGy (250 cGy per fraction)
or 5000 cGy (200 cGy per fraction). In the second group the boost was
performed after the teleradiotherapy (using the same regimen). The dose
of boost was 10 Gy in 1 fraction in both groups.

Results: The median follow-up was 115 months. No local recurrence was
observed in the first group. Three patients of the second group (receiving
the boost after teleradiotherapy) developed local recurrences and had
simple mastectomy. Distant metastases were observed in 3 cases in the
first group and in 6 cases in the second one. Five patients died: 2 in the
first group (the cause of 1 death was breast cancer postoperatively) and 3 in the second
(1 patient died in a car accident). No data is available in 5 cases. The
volume of irradiated tissue during HDR boost was different between two
groups (p < 0.001). The cosmetic effect, as measured by 4-point scale, was
satisfactory and comparable in both groups.

Conclusions: The perioperative HDR brachytherapy boost is a safe
procedure. The overall survival and cosmetic outcome in both groups is similar.

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Poster
Double vascular anastomosis in DIEP free flap reduces morbidity in
breast reconstruction – A prospective study about 173 patients
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Objective: In order to evaluate, in our experience, the morbidity of the
abdominal skin and fat microsurgical free flap (DIEP), using a double
vascular anastomosis, arterial and venous.

Patients and Methods: DIEP was used for 173 consecutive breast
reconstructions (BR). One hundred fifty patients (86.7%) had an immediate
breast reconstruction (IBR) and twenty three patients (13.3%) a delayed
breast reconstruction (DBR). In 167 (96.5%) cases BR was unilateral and
in 6 cases bilateral (3.5%).

The mean age at time of surgery was 52 years (youngest 28 ans, oldest
72 ans). One patient out of three had a BMI > 25. Among 26 patients, a
primary chemotherapy was done, followed by a skin sparing mastectomy
with IBR. For microsurgical vascular anastomosis, we used an artery and
vein duplication on internal mammary or thoraco dorsal pedicles.

Results: Immediate morbidity was: re-anastomosis (5.2%), 5 flap
necrosis (4.6%) and 5 total necrosis (2.5%), 6 hematomas (3.6%).
Secondary morbidity was: 3 abdominal donor site necrosis (1.7%) and
2 evertions (1.1%), 6 hernias (4.8%). The average hospital stay was 9
days.

Conclusion: DIEP free flap and two vascular anastomosis can be
performed with an acceptable complication rate in multidisciplinary team
who realise frequently microsurgical breast reconstruction procedure, after
primary chemotherapy as well. Delayed breast reconstruction procedure
in our experience must be reconsidered.

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Poster
A comprehensive approach to measure cosmetic and functional
results of breast conserving therapy – design and first results of a
pilot study
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Background and Aim: Cosmetic and functional outcomes as important
influencing variables of quality of life can be measured subjectively
(qualitatively) and objectively (quantitatively). There is no generally
accepted way to study and report these outcome variables. Therefore,
in our study we assess different approaches to measure cosmetic and
functional results.

Material and Methods: Eligible for participation in the study are
patients who are scheduled for breast conserving surgery of primary, one-
sided breast cancer. In respect to the above described subjective and
objective aspects regarding cosmetic and functional outcome of breast
conserving therapy we apply three different study instruments: 1. Patient
questionnaires: We use the EORTC QLC C 30- BR 23, a generally accepted
tool to measure quality of life in breast cancer patients. Further, we
introduce a German version of BCTOS (Breast Cancer Treatment Outcome
Scale) which is specifically developed to assess cosmetic and functional
variables after breast conserving therapy. 2. BCTT.core (breast cancer
conservative treatment cosmetic results) software to analyze standardized
photographs. It measures all well-known indices correlated with the overall
aesthetic result. 3. Clinical examination: We measure both differences
in arm circumference and the range of motion of the shoulder. Every
patient will be assessed using all three methods at different times: Pre-
and postoperatively, before and after radiation and at long term follow-up
visits.

Results: Since 01 September 2007 (until 15 January 2008), 109 patients
entered our department who met the inclusion criteria (primary, one-sided
breast cancer, planned to get breast conserving surgery). Out of those we
included 103 patients into the study. 91 patients completed the surgical
part of the procedure. So far, there are 15 patients who had to under go
a second or third operation. To summarize: we included 95% of screened
patients; during the first part of the study, i.e. pre- and postoperatively,
there is only a drop out rate of 4%. Regarding the second part of the study,
i. e. the visits before and after radiation, there is no conclusion yet to be
drawn due to the short enrolment of the study.

Conclusions: These first results underline that it is possible to evaluate
different aspects and instruments of cosmetic and functional outcome in a
prospective setting.