



Oncoplastic Surgery for Centrally Located Breast Cancer

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Abstract

In breast carcinomas, especially in multifocal and large tumors, the best way to operate a patient in a safe and aesthetically pleasing way is an oncoplastic operation. Otherwise, only a mastectomy would be feasible and oncologically secure. We therefore want to present a report on a quite satisfactory outcome after an Inverse-T-oncoplasty in a large invasive ductal carcinoma.

Case Presentation

This case report shows the excellent outcome, aesthetically and ontologically, of an oncoplastic approach in a 51-year-old patient suffering from an invasive ductal breast carcinoma with favorable tumor biology. After neoadjuvant chemotherapy the tumor shrank significantly and the central lesion dissolved into several parts, enabling a breast-conserving therapy instead of a mastectomy. After 5 years of follow-up the patient still remains in clinical remission. In breast carcinomas, especially in multifocal and large tumors, the best way to operate a patient in a safe and aesthetically pleasing way is an oncoplastic operation. Otherwise, only a mastectomy would be feasible and ontologically secure. We therefore want to present a report on a quite satisfactory outcome after an Inverse-T-oncoplasty in a large invasive ductal carcinoma.

In October 2010, a then 51-year-old still premenopausal female patient was admitted to our surgical outpatient department. The patient originally noticed some suspicious skin alterations in August 2010 and got a mammography in which a speculated breast carcinoma was found (BIRADS 5). Back then, a biopsy was taken, which revealed an invasive ductal breast carcinoma including ductal carcinoma in situ (DCIS), with 100% reactive hormone receptors and HER2 negative and 10% MIB-1, thus being a Luminal A-tumour. In addition to the regular mammography also a MR-mammography was performed, where the main tumour was described as 45 × 34 × 35 millimeters in size. It was irregularly configured and spiculated, lying retromammillary with contacts to skin and subcutaneous tissue as well as having satellite lesions in the laterocranial quadrant distending up to 12 millimeters (Figure 1).

Clinically, the tumour was palpable and the skin showed oozing erosion in the right areola. Both axillas were clinically negative. The premenopausal patient was sent to the oncological department for neoadjuvant chemotherapy to shrink the tumor preoperatively and to provide a breast-conserving therapy to the patient. She then received four cycles of docetaxel and epirubicin with infusions of pegfilgrastim from November 2011 until February 2012 within a 3-week schedule.

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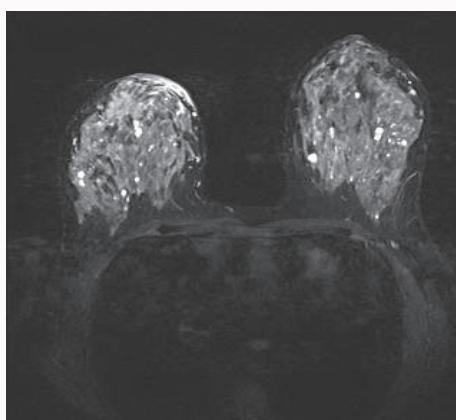


Figure 1: Pre PST.

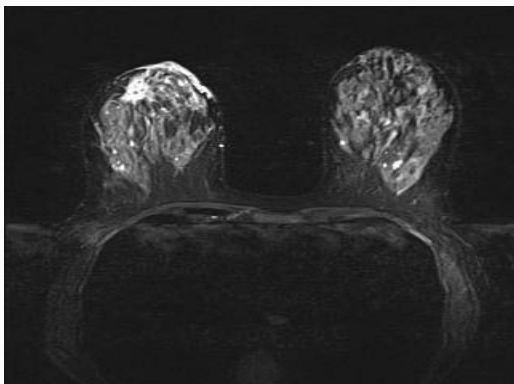


Figure 2: Post PST.



Figure 5: Early results after reduction mammoplasty and nipple sharing.



Figure 3: Pre Operation.



Figure 6: Long time follow up (3yrs).



Figure 4: Post operation, pre adjusting mammoplasty on the other side.

Following neoadjuvant chemotherapy MR and PET-CT showed partial remission, wherein the central lesion was partly dissolving, partly flowing together. The main tumor's diameter shrank from 4 to 2 cm, also the satellites shrank significantly, however there were still large amounts of residual cancer cells in the central part of the large ptotic breast (Figure 2). Surgery was done in April 2011 using inverse-T-oncoplastic techniques with resection of the central part of the breast including the nipple areola complex (NAC) (Figure 3 and 4). The excised specimen weighed 216 g and final pathology revealed clear margins. The definite histology was ypT2, ypN2, ER 90%, PR80%, Her 2 neg., MIB 10% and R0. The only morbidity after the operation was a wound seroma that had to be punctured once.

The patient entered menopause after the neoadjuvant

chemotherapy, she received an additive adjuvant therapy with tamoxifen 20 mg once daily and goserelin 3.6 mg every 28 days as well as zoledronic acid 4 mg i.v. every 6 months to prevent osteoporosis. Almost a year later, in February 2012, the patient received a reduction mammoplasty for symmetry on the left side including a nipple sharing with very good aesthetic results (Figures 4-6). The NAC on the right side was reconstructed with the areola skin and the nipple of the left side. No signs of malignancy could be found at that time, also the follow-up tests in the last years never showed any suspicion for a tumor recurrence.

Discussion

Oncoplastic surgery offers a lot of appropriate techniques based on the location of the tumor and of course the size of the afflicted breast and is in terms of aesthetics generally well received in patients [1-3]. For example, lateral tumors can be treated with a glandular flap [4], central tumors involving the nipple-areola complex with the batwing or hembatwing technique [5], caudal tumors with an Inverse-T [6], not mentioning many more approaches. Regarding the safety of this kind of operations, it has been proven that oncoplastic surgery is also oncologically safe [7-9]. More over Chakravorty demonstrated that the proper use of OPS significantly decreases re-excision rates. However, data clearly show that there is an increased risk of morbidity with age, weight, and smoking status, bleeding disorders and diabetes as independent predictors [10]. Regarding delay of adjuvant systemic therapy, Khan demonstrated that there are no significant differences between lumpectomy, mastectomy, mastectomy with immediate reconstruction and OPS in this respect [11].

Similar cases have been reported by Bordoni and Silverstein, among others. They both named their approach “extreme oncoplastic surgery”, because, as in our case, they treated a large tumor with OPS instead of a mastectomy. Both case reports had multicentric tumors in large breasts, which enabled the surgeons to conserve the breast with a concordant reduction mammoplasty of the other side [12-14].

Conclusion

It can be said, that in the right patients, with favourable tumor biology, yet advanced tumor size, oncoplasty is a feasible way to preserve the integrity of the breast. The only thing that hinders this possibility is a lack of training or – if the oncological breast surgeon is not capable of performing the operation alone – a lack of plastic surgeons on hand at the respective hospital. This indicates, that to establish this kind of procedure, which is an optimal treatment for the patient, every surgeon doing oncological breast surgery should at least have basic knowledge of this topic, or, even better, gain the necessary operational skills.

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