Case Report

Therapeutic Breast Reduction in Upper Quadrant Breast Tumor

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ABSTRACT

Introduction: Breast conserving surgery plus radiation therapy and mastectomy procedures has equal results in terms of survival. Oncoplastic surgery principles along with breast reduction techniques allow for very good aesthetic results in immediate breast reconstruction with local tissues in several well-defined clinical scenarios. Nevertheless, we still find several limitations to their use regarding the location of the tumor or the need for inconvenient skin resections out of the standard markings of breast reduction. We present a case where traditional breast reduction techniques were inadequate and technical modifications of standard markings and pedicle design were developed to avoid the need to undergo a mastectomy.

Methods: We present a patient diagnosed with breast cancer where the clinical characteristics of the tumor (location, skin excision needed) precluded the use of traditional oncoplastic breast reduction techniques. Modifications to the traditional breast reduction techniques were used to cope with the oncological resections needed.

Results: A good global symmetry and aesthetic result were achieved. Scar pattern obtained was considered relatively camouflaged and patient satisfaction was high.

Conclusion: Breast reduction procedures can be the solution for the treatment of breast cancer. The location of the tumor in the superior quadrants outside standard markings and the need to include skin in the tumor resection can be sidetracked by using enlarged NAC pedicles with modifications to classic skin markings without compromising oncologic safety. The final aesthetic results obtained are considered very good and the patient is very satisfied.

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Materials & Methods

We present a patient treated at our institution that was diagnosed with breast cancer and considered eligible for breast conserving surgery in the oncology board meeting. Classic indications for this included unifocal disease, small tumor mass, generous remaining breast volume after extirpation and the patient’s desire. In our practice, the preferred method for breast conserving surgery is the use of breast reduction techniques, due to their versatility and possibility of adaptation to various scenarios. Classic indications for therapeutic breast reduction procedures comprise large breasts (C-cup or larger), the location of the tumor to be preferably in the lower quadrants and the need not to excise skin outside the borders of breast reduction patterns (inverted T or vertical scar). However, regardless of these indications, in this case the authors create a modification to the standard techniques allowing to still be treated in a conservative way.

The case we present is about a 42-year-old woman with a third-degree ductal carcinoma, in the Bloom and Richardson scale. The tumor was located in the central part of the upper pole of the left breast, directly above the NAC, and was in close proximity to the skin so that breast surgeons had to excise it with margins. Skin marks were drawn on the patient before surgery, allowing for a correct pre-surgical planning, in the presence of both plastic and breast surgeons. This multidisciplinary approach allowed for breast surgeons to use the breast reduction pattern markings to access the tumor, simultaneously obtaining wider resection margins and easier access if necessary. The tumorectomy local and the resulting skin defect was too high for the new NAC position to close the wound without compromising the aesthetic result.

A plan was designed to modify an inferior-based dermoglandular pedicle so that the portion of skin above the original NAC position and below the tumor resection site was preserved. An inferior-based inverted T breast reduction technique was also used in the contralateral breast at the same surgical time as to obtain symmetry.

Results

A good global symmetry and aesthetic result where achieved, despite an uncommon scar above the new NAC and overall, very good cosmetic result was obtained. No complications were reported with this modified technique and the pedicle maintained a good vascularization.
In our opinion, it’s not breast volume, tumor location or even the need for skin resection that can predict the possibility of using therapeutic breast reduction procedures. One must evaluate each case individually and determine this possibility alongside team members and the patient’s desire.

Conflicts of Interest
None.

Ethical Approval
This study has been approved by the appropriate ethics committee and has therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments.

Consent
All Patients gave their informed consent prior to their inclusion in this study.

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