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Surgery Techniques with Breast Surgical Oncology

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Abstract

The original focus was to maintain quality of life of patients undergoing oncological treatments, since majority of them are expected to enjoy long-term survival. It can be more effective from the aesthetic-functional point of view than traditional techniques, without compromising local control and survival. This is the goal of this new philosophy in breast cancer surgery that considers the appearance of the breast as a critical component.

Keywords: Treatments; Surgeon; Quadran; Techniques; Aesthetic; Units

Introduction

The most frequent residual deformities after are deficiency of glandular tissue and overlying skin retractions resulting from wide resections and late side effects after radiotherapy, deformity and retraction of the nipple and areola complex, reduction of mammary ptosis and asymmetry of the infra-mammary crease as a consequence of fibrosis and breast retraction after radiotherapy [1]. All these deformities are expected to be more evident in quadrantectomy than in lumpectomies, and are also related to the tumour location and its proximity with the NAC and skin, and the boost. So, the most adequate technique for each patient should be determined according to the anticipation of the size and position of the future breast defect, the tumour proximity with the skin, and the clinical conditions of the patient.. Thus the selection of patients from oncological, aesthetical and psychological point of view is critical. All attempts should be made to minimize the risk of positive margins, which are difficult and sometimes impossible to reassess in a second surgery, and to reduce and prevent complications that may delay adjuvant treatments. Patients strongly motivated to preserve their breasts better tolerate this kind of surgery. Therefore, there are some established indications for in , the main ones is for patients with more volume of mammary resection, and especially in the case of macro-matia, where results from skin-sparing or nipple-sparing mastectomy are usually unsatisfactory and approach may also favour radiotherapy planning. Although the availability varies between the countries, there is a general agreement that the insertion of these techniques has many positive advantages. In spite of that, some controversy persists about the best team approach [2]. Possibilities for performing in surgical practice, A breast surgeon with training in all techniques performing all cases. A breast surgeon with training in some techniques performing most cases, but associates with a plastic surgeon for more complex techniques. A breast surgeon and a plastic surgeon working together on all cases [3]. A breast surgeon and an oncostic surgeon working together on all cases. In Brazil we have all these realities, sometimes even in the same institution, although in great centres the third one is the prevalent model. Brazilian Society of Mastology, in a Consensus Meeting held in Sao Paulo, established the rules and limits of, which is now a reality in many Brazilian Breast Units. Basically, the best choice of technique in depends on elements related to the tumour location, characteristics of the breast, and clinical evaluation of the patient [4]. The only significant element referred as an aesthetical risk in Cochrane evaluation was the volume of mammary. Besides that, some associated clinical conditions may influence on the choice of the most appropriate technique. Diabetic patients, tobacco addicts, those with collagen diseases and those above are subject to risks concerning unsatisfactory aesthetic results and skin healing complications are higher than those that do not have these limiting conditions. Major resections and wide NAC dislocations may bring risks of fat necrosis and of partial or total losses of the NAC. The ideal location for a tumour is within the resection area of the mammoplasty [5]. When the tumour is close to the skin and out of this area, the procedure may be more complex and it may require combined techniques, whose results are not always satisfactory. In such cases skin sparing or nipple sparing mastectomy should be considered, as well as in the cases that a major resection of the skin is needed. Flaps as the one from the latissimus dorsi, which has a different colour and texture from the breast, usually bring unsatisfactory results, and therefore should be considered as an exception. High volume breast, with severe ptosis, allow for surgeries with wider margins and usually bring more satisfactory results. Patients with macro-mastias present a formal indication for due to better radiotherapy planning [6]. In cases of previous breast augmentation plastic surgery, it is necessary to take into consideration that the breast volume is not the real one, and consequently some considerable deformities may result. The biggest problem concerning is dealing with young patients, with conic breast, without mammary ptosis and with low or medium volume. In such cases, according to the location or tumour size, local flaps offer a little chance of good results, so skin-sparing or nipple sparing mastectomy with immediate reconstruction may be the best choice. At Breast Unit of Hospital Nossa Senhora das Gracas, the decision flowchart sets that all decisions should be taken according to the features of the patient's breast and the tumour size. The diversity of techniques that are used in breast aesthetic surgery supports an increase in the indications of a more radical approach. In most cases, reductive mamma-plasties based on different pedicles can be transported to [7]. Tumour located at upper quadrants Severe therapy with lower pedicle Moderate moderate reductive mamma-plasty round block Tumour located at lower quadrants Reductive mammlasty with upper pedicle, according to amount of skin to be resected pre-operative stage; the level of mammary lipo-substitution, the height, shape and size of NAC and mainly the size and location of the tumour are the most important factors to consider when choosing the technique of mamma-plasty to be applied.

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Tumours found in higher quadrants of small and medium volume breast, with low level of mammary ptosis, can be operated through the round-block technique. Tumours in lower quadrants can be operated through reduction mamma-plasty techniques of a Lejour type or a similar one, considering the volume and level of mammary ptosis. High volume breast, with a severe mammary ptosis and/or with tumours found in upper quadrants can be operated with mammary reductions based on the lower pedicles . However, more advanced glandular remodelling or even the use of autologous tissues or implants to avoid major deformities are necessary sometimes, but risk-benefit of these approaches should be evaluated together with the patient, due to radiotherapy late side effects. Basically 3 techniques allow for remodelling in most cases, superior pedicles, inferior pedicles and round block. The base study that established draws attention to not only its aesthetic benefits, but mainly to the surgical margins within its procedure. The aesthetic results were considered favourable in most cases. This paper brought important elements for discussion among the scientific community and it has proved that allows for more extensive mammary resections without compromising aesthetics [8]. Two other studies performed at the European Institute of Oncology, in Milan, have proved the oncologic safety. The first one, a prospective study, compared quadrantectomy margins with margins and found a higher rate of negative margins, which confirms previous data from non-comparative studies. The second one, a retrospective cohort, aimed to evaluate late oncologic results. Patients with tumours underwent this type of surgery. The medium follow-up of these patients was months and it showed a lower local recurrence rate than expected in conventional. No recurrence was found in patients of the carcinoma in situ group and group. Besides providing aesthetic improvement, also favours wider sections of the margins around the tumour, which results in a better local control of the disease through mammary reduction improves local conditions for radiotherapy planning in voluminous breasts, or even makes it possible for to be applied to patients with small breasts or in cases of tumours found in risky regions for obtaining a satisfactory aesthetic result. This type of conceptual advance changed the view that giving more attention to the aesthetic condition could cause damage to the oncologic results, or vice-versa. That is why results in mastectomy have improved significantly over the past years. Therefore, the width of the margins must be carefully evaluated [9]. Major resections might limit the aesthetic result by means of local flaps in some cases. However, a reduction of the margin in the post-operative stage of might not be easily changed into a broad one in a secondary surgery, due to extensive glandular re-modelling. Fortunately, this situation is infrequent, as the margins are wider. Long-term oncological and aesthetical results [10]. Recent unpublished data from Breast Unit of Hospital Nossa Senhora das Gracas showed in surgeries, free margins and the average of margins. Besides, with the association of pre-operative magnetic resonance in patients at risk, i.e. those with very dense breast; with previous breast plastic surgery; with family history positive to breast cancer, lobular carcinoma; or in limiting indications, it is possible to avoid a secondary surgery to widen the margin or even to contraindicate against a mastectomy with immediate reconstruction. Allowance for an oncologic-aesthetic-functional individualized surgical approach. Such an advance means a new philosophy in breast cancer surgery.

Conclusion

As it happens with all changes of paradigm, it brings new challenges for the transversal formation of all involved in the treatment of breast cancer. Besides that, it opens new perspectives of research related to the late aesthetic results, quality of life and local control, as well as optimization of operative timing and reduction of both adverse side effects and costs.

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Conflict of Interest

None

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