

Early Experience with Oncoplastic Breast Surgery in a Tertiary Care Cancer Centre in North-East India

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Abstract: Introduction: Oncoplastic surgery merges the principles of oncology and plastic surgery. Methods: A prospective single centre study was done on patients with carcinoma breast for a one year period from 1st January to 31st December 2019. Various parameters were noted over time and the results were analyzed using simple statistical methods. Results: Of 248 patients who underwent surgery for carcinoma breast, 64 patients had breast conservation surgery (BCS). The oncoplastic techniques performed were breast tissue advancement flap (Type 1 Oncoplasty) in 49(76.56%), Grisotti flap 2(3%), Benelli technique 3(4.68%) and latissimus dorsi flap 10 (15.62%). The median age of patients was 46.5 years. The median size of tumor was 3.5 cm. At median follow up for 4.4 months (range 1-12 months) patient satisfaction results were excellent based on subjective assessment. Based on an objective assessment according to Harvard Scale, results were excellent in 37(58%), good 17(26.3%), fair 7(10.5%) and poor 3(5.2%). The choice of technique was dependent on achievement of safety margins, breast volume and its ptotic degree. Conclusion: Use of oncoplastic techniques provides rewarding cosmetic results.

Keywords: Oncoplastic techniques, breast cancer, breast conservation surgery, cosmesis after breast surgery

1. Introduction

The goal of oncoplastic procedures is to resect the breast tumour with negative histologic margins while preserving the contour of the breast, with good symmetry. Oncoplastic surgery merges the principles of oncologic and reconstructive surgery, utilizing a spectrum of techniques to fill defects and optimize cosmesis. The goals of treatment are to provide optimal local control while maintaining or reconstructing a cosmetically acceptable breast.

2. Methods

A prospective single centre study was conducted on patients with carcinoma breast for a period of one year, from 1st January to 31st December 2019. Patients opting for breast conservation surgery when amenable for the procedure with no contraindications for it were included for the study. All patient and tumour characteristics, surgical techniques, intraoperative and postoperative parameters and follow up details were noted in a prospectively maintained database.

3. Surgical Techniques

Different techniques were used which included Breast tissue advancement flap, Grisotti flap, Benelli technique, LD flap. The choice of technique was dependent on achievement of safety margins, breast volume and its ptotic degree. Separate incision was used for axillary dissection.



Figure 1: Grisotti flap



Figure 2: LD flap



Figure 3: 2 weeks follow up



Figure 4: Benelli technique

4. Results

Of 248 patients who underwent surgery for carcinoma breast, 64 patients had breast conservation surgery (BCS). Median age was 46.5 years (range 34 to 87 years). The median size of tumor was 3.5 cm. BCS with oncoplasty was done after downsizing of tumour with neoadjuvant chemotherapy in two cases. There were no major complications. All except one of the patients undergoing BCS had invasive ductal carcinoma. That one patient had ductal carcinoma in situ.

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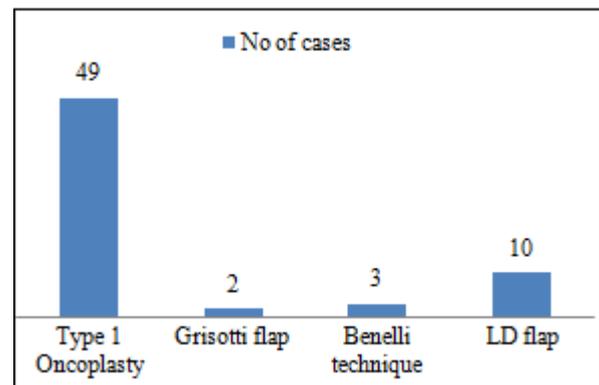


Figure 6: Type of BCS technique

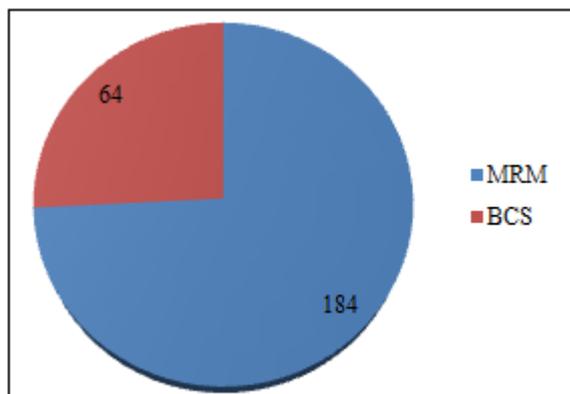


Figure 5: Type of Surgery

At median follow up for 4.4 months, the patient satisfaction results were excellent based on subjective assessment. Based on objective assessment according to Harvard Scale, results were excellent in 37 (58%), good 17 (26.3%), fair 7 (10.5%) and poor 3 (5.2%).

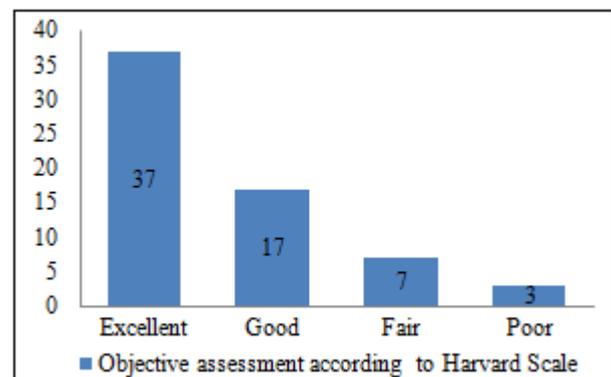


Figure 7: Objective assessment. Harvard scale.

5. Discussion

Oncoplastic breast surgery aims to achieve good aesthetic outcomes for women with breast cancers who would have unacceptable outcomes with lumpectomy, and in addition, enable breast-conserving surgery for larger breast cancers. It also gives an option other than mastectomy in patients with larger tumours.

An oncoplastic procedure aims to minimise cosmetic impairment to the breast by obliterating surgical cavities that may create distortion. Thus, they utilize the principles of parenchymal redistribution or parenchymal replacement¹.

Poor cosmetic outcome after wide local excision is well predicted by the percentage of breast tissue being removed and the location (quadrant) of the breast cancer among many other factors. Prospective randomized clinical trials have shown that BCS followed by radiotherapy gives equivalent survival rates compared with mastectomy^{2,3}. So, with oncological safety being assured, the cosmetic outcome should be a priority.

A thoughtful incision planning is a first step, with an understanding of how breast deformity occurs in order to avoid it. Any resection cavity within the breast will collapse and pull both parenchyma and skin towards the cavity. And, any skin excision or even incision will contract and create some distortion. Also, central and medial cavities have relatively less laxity and volume and so they create more deformity.

In the current scenario, even large tumors are amenable to be treated with BCT, especially after tumour downsizing with neoadjuvant treatment. However, one of the major limitations is the ability to perform a large enough resection without compromising the cosmetic result. The larger the tumor, the greater the risk of lumpectomy margins being involved with tumor⁴.

Oncoplastic surgery is a greatly useful tool in several such situations. Every time a lumpectomy was not suitable or where there was a need for a large resection, or where there was a high risk of deformity, oncoplastic surgery has been used liberally⁵.

In the follow up period, clinical and radiologic examinations have not been affected by the remodeling procedure, and mammographic changes are not a hindrance for proper evaluation.

In the current study, no episodes of local recurrence or systemic metastasis were reported. This may be attributed to short term follow up, which is one of the acknowledged drawbacks of our study. We understand that our study does not include many other complex oncoplastic procedures as described in literature and performed in dedicated high volume centres of the country. Our endeavour to learn and practise more such procedures with adequate training will continue and we will report such results as and when applicable.

6. Conclusion

Oncoplastic surgery is a very useful tool in the armamentarium of a breast surgeon. This approach has allowed us to obtain favourable aesthetic outcomes and to perform wider resections with good oncologic control and favorable cosmesis.

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