

Palliative Mastectomy Revisited

Digpal V Dharkar, Sonia Moses

Indian Institute of Head and Neck Oncology, Indore Cancer Foundation, Indore, Madhya Pradesh, India

Abstract

Couple of decades ago, Palliative Mastectomy for locally advanced breast cancers was common, if not frequent surgical procedure in the surgical armamentarium. The advent of better understanding of tumor biology and better multidisciplinary management has certainly narrowed down its role. However there are situations where it is still a potent option. In the subset of patients where palliative mastectomy is to be performed, it is important to aim for clear surgical margins, with good clearance at the third dimension, i.e. the tumor base. Surgeons with adequate experience of breast cancer surgeries should perform the procedure to achieve intended palliation.

Keywords: Locally advanced breast cancer, palliative mastectomy, patient selection, swift palliation

INTRODUCTION

Breast cancer has ranked number one cancer among Indian females with age-adjusted rate as high as 25.8/100,000 women and mortality 12.7/100,000 women,^[1] with 25%–30% patients presenting as locally advanced breast cancer (LABC).^[2]

From the clinical examination perspective, nomenclature such as four-quadrant tumor, fixity to the chest wall, and fungating or about to fungate have all been used in describing LABC and have the dubious distinction of representing the category of breast cancers with a questionable possibility of cure.

For LABC, involving the entire breast issue or most of the breast parenchyma, palliative simple mastectomy has been one of the options, as a surgical procedure. The rationale of such a palliative mastectomy was to relieve the patient of a distressingly bulky cancerous breast and living in the agony of fungation or impending fungation.

While the mastectomy did not assure cure, alleviation of symptoms caused by local tumefaction was fast and relief rapid. A surgeon removed the entire breast tissue, at one go, along with the involved skin.

Palliative mastectomy was recommended in patients to get rid of “large four-quadrant” tumor which had already transgressed skin, often with secondary infection.

After prior histological confirmation by doing biopsy, routine tests, patient choice, performance status, and pretreatment consent and counseling, the patient underwent surgery.

The procedure had two challenges: one, to procure adequate margins; and the other, given the overall physical condition, safe surgery. In patients with wide resection margins, proper primary closure was sometimes difficult. Surgically, a very wide excision was achieved either by primary closure or by split-thickness skin grafting or sometimes by a more complex reconstructive procedure. Another challenge was to have clear surgical margins and therefore mandated that it be performed with a “wide” excision of the skin.

In the present day and age, management of breast cancer has undergone a paradigm shift. With the advent of better multimodality treatment, palliative mastectomy is under question.

The following factors may have put palliative mastectomy on probation:

1. Better understanding of the biology of breast cancers
2. Availability of molecular markers as predictability tools
3. Better radiotherapy equipment
4. The advent of multidisciplinary treatment particularly

Address for correspondence: Dr. Digpal V Dharkar,

Indore Cancer Foundation Charitable Trust, Indore, Madhya Pradesh, India.

E-mail: digpaldharkar@gmail.com

Access this article online

Quick Response Code:



Website:
www.jpalliativecare.com

DOI:
10.4103/IJPC.IJPC_98_18

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Dharkar DV, Moses S. Palliative mastectomy revisited. Indian J Palliat Care 2018;24:359-61.

the best-suited chemotherapy which offers potent option for shrinkage

5. Facilities for palliative care, with defined endpoints, focusing on what is acceptable to the patient.

What about radiotherapy as an alternative to palliative simple mastectomy?

There would be two possibilities: one of just a locally large breast cancer and the other that is more severe, presenting with bleeding.

According to some radiotherapists, if surgeon thinks that closure is not possible, then to stop bleeding and to control fungation, palliative radiation can be used through single large fraction. Hemostatic local radiation, however, has uncertain outcomes and may take time to achieve outcomes.^[3]

In other situations, which are not as severe, a dose to the whole breast radiotherapy alone of 60 Gy with a boost on the tumor up to 70 Gy, using electrons (10 Gy boost with electrons), may shrink the tumor notwithstanding side effects.

The crux of the treatment would be chemotherapy.

In terms of chemotherapy in a large tumor, there would be significant tumor shrinkage which may, at a later point of time, open up the possibility of conservative breast surgery, a paradigm shift in surgery for breast cancer, with the dimension of surgery in a definitive setting, shrinking from radical to conservative breast surgery.

Thus, better understanding of tumor biology resulting in better treatment options now allows the surgical oncologists to perform breast conservation without conserving the tumor, rather than upfront mastectomies followed by postoperative radiotherapy for extended locoregional control.

Chemotherapy for LABC would be required in both the settings: one that is confined locoregionally and the other that has spread. On the other hand, of the two settings, for doing a palliative mastectomy the preferred option would for a bleeding breast mass with absence of metastatic disease elsewhere in the body. Palliative mastectomy done for oozing breast mass, offers swift palliation, provided that it is done with due precautions and safety standards.

The other option would be a setting where tumor is advanced locally and spread has occurred. In the years gone by, the idea of surgery here was once again quick relief, so that women did not have to carry the painful, fungating, mass involving entire breast, which compromised their quality of life.

However, reports in literature suggest that in locally advanced with a metastatic setting, the role of removal of the breast does not improve survival, thus contradicting the purported benefit of mastectomy.

On the one side, overall survival benefit has been demonstrated by Turkish trials^[4] where the possible reasons for reported benefits are recovery of immune competence due to decreased tumor burden, removal of “seed” source, i.e., primary, decrease

in potentially resistant cells, and increased chemosensitivity of metastatic sites.

On the other hand, five randomized controlled trials in the US/India/Australia/Netherlands/Turkey have not shown any survival benefit, with an aggressive phenotype epitomized by triple-negative nodes positive cohort with ECOG-03, performance status. They are perhaps best left untreated by palliative surgery.^[5]

Can patients with noninvasive oligometastasis following failed chemotherapy benefit from palliative mastectomy? A distinctive subset of metastatic breast cancer is represented by the so-called “oligometastatic” disease, characterized by single/few detectable metastatic lesions. A more aggressive multidisciplinary approach can be considered in this patient population: available data report favorable results of “radical” local therapy for limited metastatic disease at least in a subset of selected patients.^[6] For example, in a study of 16,023 patients with Stage 4 disease, the presence of free surgical margins was associated with an improvement in 3-year survival.^[7] Selection bias and the retrospective nature of data do not allow for generalization of the results: the use of such approaches must be individualized and managed within a multidisciplinary team of dedicated specialists.

Improvement in surgical and radiation techniques, development of new tools to deliver local chemotherapy, and new procedures (i.e., cryosurgery, laser, and microwave ablation) mandate careful evaluation of such single and combined modalities in controlled clinical trials.

Agreed that the patients’ prognosis is determined by the tumor burden of the metastatic disease and local therapy may not change their overall survival, however, a more accurate identification of patients with limited metastasis, i.e., truly oligometastatic disease, will allow proper patient selection for locally aggressive therapies with the “toilet mastectomy” or partial mastectomy for primary breast cancer kept in reserve for life-threatening symptoms such as bleeding or by patients choice after elaborate and detailed discussions with multidisciplinary team including palliative care team and counselors despite the fact that facilities are still few^[4] and there are several challenges in providing it.^[7]

Good margins are important. Even though the surgical procedure is palliative it is important to reduce, the occurrence of local recurrence developing in the operated area, otherwise the reason of doing the procedure intended for relief, gets defeated within weeks after doing the procedure itself. This is because recurrences developing on a post mastectomy scar tend to be more painful than the primary tumor, once they infiltrate the chest wall. Therefore, not only must the toilet mastectomy be done with healthy margins but care must also be taken that the entire tumor is debulked three dimensionally, i.e., at the base as well.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Malvia S, Bagadi SA, Dubey US, Saxena S. Epidemiology of breast cancer in Indian women. *Asia Pac J Clin Oncol* 2017;13:289-95.
2. Valero VV, Buzdar AU, Hortobagyi GN. Locally advanced breast cancer. *Oncologist* 1996;1:8-17.
3. Nomoto S, Akai T, Nomiyama H, Kuwano H, Kuwabara Y, Yoshimitsu K. A retrospective study of the effectiveness of haemostatic radiotherapy with conventional fractionation in patients with advanced cancer Nomoto S, *et al.* *J Cancer Res Ther* 2015;3:124-8.
4. Rajgopal M. The current status of palliative care in India. *Cancer Control* 2015:57-62.
5. Soran A, Ozmen V, Ozbas S, Karanlik H, Muslumanoglu M, Igci A, *et al.* A randomized controlled trial evaluating resection of the primary breast tumor in women presenting with *de novo* stage IV breast cancer: Turkish Study (Protocol MF07-01). *J Clin Oncol* 2016;34 Suppl 15:1005.
6. Di Lascio S, Pagani O. Oligometastatic breast cancer: A shift from palliative to potentially curative treatment? *Breast Care (Basel)* 2014;9:7-14.
7. Dharkar D. Attrition as one of the challenges of developing a palliative care centre: Experience of the Indian Institute of Head and Neck Oncology, Indore, India. *Ecancermedalscience* 2018;12:ed80.