

Subject Area:

Psychological respect for patients with breast cancer using radial incision which gives better cosmetic outcome after conservative breast surgery

Adel K. Barsoum

Mataria Teaching Hospital, adel_mariafather@hotmail.com

Hytham R. Yassin

Mataria Teaching Hospital

Follow this and additional works at: <https://jmisr.researchcommons.org/home>



Part of the [Medical Sciences Commons](#), and the [Medical Specialties Commons](#)

Recommended Citation

Barsoum, Adel K. and Yassin, Hytham R. (2018) "Psychological respect for patients with breast cancer using radial incision which gives better cosmetic outcome after conservative breast surgery," *Journal of Medicine in Scientific Research*: Vol. 1: Iss. 3, Article 5.

DOI: https://doi.org/10.4103/JMISR.JMISR_39_18

This Original Study is brought to you for free and open access by Journal of Medicine in Scientific Research. It has been accepted for inclusion in Journal of Medicine in Scientific Research by an authorized editor of Journal of Medicine in Scientific Research. For more information, please contact m_a_b200481@hotmail.com.

Psychological respect for patients with breast cancer using radial incision which gives better cosmetic outcome after conservative breast surgery

Adel K. Barsoum, Hytham R. Yassin

Department of OncoSurgery, Mataria Teaching Hospital, Cairo, Egypt

Abstract

Background

Breast cancer is considered as one of the most common cancers affecting women, and remains one of the world's biggest killers. Once diagnosed as a breast cancer patient, a woman can be exposed to psychological trauma that is manifested as stress, anxiety, and even depression. Since surgery is the most important part of breast cancer management protocol, the first time a woman looks to her body after surgery can be harmful. Despite this gloomy picture, there have been some dramatic modifications recently in the treatment of breast cancer, especially in early detected tumors. One of them is the clear shift towards more conserving surgeries that preserve an appreciable part of the breast mass. However, although breast-conserving surgery (BCS) is a good option in the treatment of breast cancer that helps to improve a patient's psychological situation, it has also its side effects, which includes pain, tenderness, tugging sensation in the breast, temporary swelling, or a change in the shape and contour of the remaining breast, together with change in the position of the nipple-areola complex, compared to the other side.

Aims

In this study, our main concern was how to make female cancer patients satisfied after surgical intervention, to respect their feelings, by not leaving them shy of their bodies for the rest of their lives. Here, the proposed surgical technique helps to achieve the best oncologic outcome for the breast shape and contour after surgery and to keep the most possible similarity between the affected breast and the intact one. From different types of skin incisions used in BCS, we chose the elliptical radial skin incision, which gives the best cosmetic configuration. This deeply helps to overcome the psychological trauma affecting these patients, which in turn improves their quality of life.

Patients and methods

In this study, 23 female patients with early breast cancer, were selected and categorized as stages I, II, and IIa breast cancer. Tumors were located at the supra-areolar region (upper outer and upper inner quadrants), and far from the nipple-areola complex. All patients fulfilled the criteria to undergo BCS, and also they refused any kind of breast reconstruction. The proposed surgical technique includes several steps: elliptical radial skin incision is used in all patients, with or without separate incision for axillary lymph node clearance, according to the tumor location; closure of the dead space after wide local excision, along its vertical axis of the wound, together with subcuticular skin closure.

Conclusion

We conclude that using this technique, especially in patients with pendulous breast gives a very satisfactory cosmetic outcome to both the patient and the surgeon, which decreases the severity of psychological trauma affecting these patients, and consequently improves their quality of life.

Keywords: Breast cancer, cosmetic outcome, radial incision

INTRODUCTION

Just hearing the doctor saying the word 'cancer' leads to a profound effect on any person, especially women. So the doctors should not neglect the emotional issues associated with

Correspondence to: Adel K. Barsoum, MD,
Department of OncoSurgery, Mataria Teaching Hospital, Cairo, Egypt,
Tel: +20 122 337 3550.
E-mail: adel_mariafather@hotmail.com

Access this article online

Quick Response Code:



Website:
www.jmsr.eg.net

DOI:
10.4103/JMISR.JMISR_39_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.

How to cite this article: Barsoum AK, Yassin HR. Psychological respect for patients with breast cancer using radial incision which gives better cosmetic outcome after conservative breast surgery. *J Med Sci Res* 2018;1:164-7.

cancer, as all the patient's social, financial, and psychological situations may be changed after cancer and its management. As for breast cancer women, it is always more harmful.

Breast-conserving surgery (BCS) is an excellent option as a management modality in patients with early-stage breast cancers [1]. Its main advantage is keeping most of the breast mass.

While one of the most common side effects following BCS is the change of the contour and the shape of the remaining breast tissue, and also change in the position of the nipple–areola complex compared to the normal side.

Many patterns of skin incision can be used in BCS, which include curvilinear incision following Langer's breast lines, circumareolar incision, inframammary incision, and radial incision (Fig. 1). The direction of skin incision together with resection of the breast tissue should consider the related cosmetic surgical principles.

Generally, scars must result from the biological process of the body's repair mechanism after tissue injury and surgical incisions [2], where fibrous tissue replaces normal skin, especially when the dermis is injured. Scar tissue also lacks elasticity [3], unlike normal tissue which contains fiber elasticity and the collagen scar tissue is usually of inferior functional quality compared to normal collagen present in normal skin [4].

Postsurgical scar tissue formation can alter the skin appearance, as scar appearance depends largely on the factors present during healing. Scars may widen, darken, or even be stretched following some kind of surgical incision modalities, especially the curvilinear 2 one. Here, the tension and swelling, together with the breast weight are the major factors affecting the final outcome, especially when the breast is large or pendulous; the resulting scar will widen and become ugly [5], as the scar is put under tension by the effect of gravity and time.

From this point of consideration, and after reviewing the reports of literature that discussed the effect of transverse incision used

in BCS, and how much it affects the final cosmetic appearance of the remaining breast shape, and by following up some patients who underwent BCS using transverse skin incisions. We focused our interest on radial incision especially with tumors located at the upper part of pendulous breast, as regards the final cosmetic outcome. We concluded that radial elliptical incision is considered as excellent. The oncoplastic one gives a very satisfactory appearance to the remaining breast, and consequently helps to improve the psychological state of cancer patients leaving them a better appearance for the rest of life.

PATIENTS AND METHODS

The study included 23 female patients with breast cancer, and was carried out between June 2012 and February 2015. All patients involved in this study had early-stage breast cancer (stages I, II, IIa), noting that tumors were located at the superior quadrants and away from the nipple–areola complex.

They were grouped into three groups: group A (15 patients with upper outer quadrant tumor), group B (four patients with upper inner quadrant tumor), group C (four patients with tumor located near the lateral mammary fold). All patients were investigated by bilateral mammography with complimentary ultrasonography, which reveals that all selected patients had a solitary tumor with no multicentricity or multifocality, also mammography could detect no microcalcification.

Metastatic workup was free in all patients, including chest computed tomography with contrast, pelvi-abdominal ultrasonography, and bone scan.

All patients were candidate for BCS, regarding the size and location of the tumor; also all selected cases gave no history of any abnormal skin diseases.

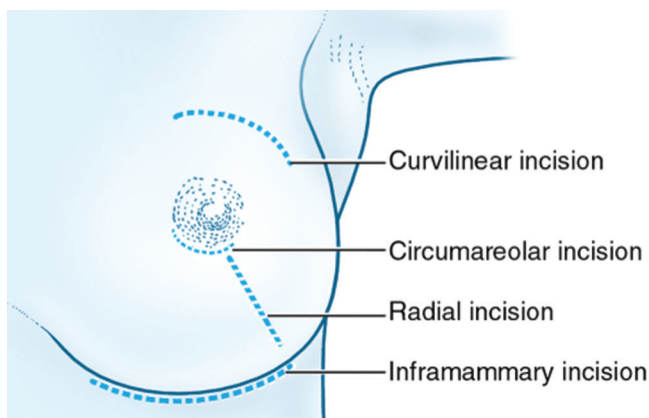
The patients were informed about the advantages and the disadvantages of BCS, as regards the possibility of local recurrence at the same breast and on the use of high doses of adjuvant radiotherapy. All cases refused any kind of breast reconstruction.

As regards routine laboratory investigations, the results were within normal range for all patients.

Operative technique

After marking the site of the mass and its location, a radial elliptical incision was marked in all patients (Fig. 2); the width of the ellipse depends on the location of the mass, and how far the tumor is from the skin. A wide local excision of the tumor was done through this incision, the excision was extended deeply till the pectoral fascia, with a safety margin of about 2 cm all around the tumor. Metal clips are placed on the periphery of the tumor bead.

After good hemostasis, the defect left after this wide local excision was closed along the vertical long axis of the wound, by approximation of both right and left glandular breast tissue using absorbable 00 vicryl suture, and the skin line was closed by subcuticular suture using vicryl 000 (Fig. 3).



Source: Minter RM, Doherty GM: *Current Procedures: Surgery*.
<http://www.accesssurgery.com>
 Copyright © The McGraw-Hill Companies, Inc. All rights reserved.

Figure 1: Types of breast skin incisions.



Figure 2: Preoperative radial elliptical incision marking. A1, B1, C1: lateral view. A2, B2, C2: front view.

The separate lazy ‘S’ skin incision was done for axillary dissection in all patients except in 15 cases in whom the tumor was located at the upper outer quadrant near the axilla, and the tumor located along the lateral mammary fold, in which breast and axillary incision is possible through the same site, which extends from the axilla and passes radially to the nipple–areola complex. A nonsuction drain was left on both surgical beads.

All patients were kept under the umbrella of antibiotics, starting 2 h before the surgery and continued for at least 4 days postoperatively. Drains were removed when they became completely dry. The postoperative period passed smoothly with all patients except only one patient, who developed fever on the third postoperative day due to wound infection, and the condition was controlled by proper antibiotics after doing microbial culture and sensitivity from the drain liquid.

RESULTS

By following up the surgical results of all patients involved in this study, where we used this surgical technique, radial elliptical skin incision, closure of the dead space after BCS along the vertical axis, together with subcuticular skin closure, we found that this technique gives a very satisfying final cosmetic look. This type of incision gives the least change in the contour of the remaining breast, compared to the other types of skin incisions used in BCS; it also gives no change in the position of the nipple–areola complex and it becomes at the same level with the normal side. Moreover, during the long term follow-up, it is well noticed that the scar shape does not change badly, as the weight of the breast does not affect the radial incision. This offers a good privilege over the transverse incisions where the weight of the remaining breast tissue causes the scar to become wider by the effect of gravity and time.

DISCUSSION

When the patient is diagnosed with breast cancer many features – physical, psychological, and emotional – are



Figure 3: Postoperative pictures. D1, E1, F1: lateral view. D2, E2, F2: front view.

threatened. Oncoplastic surgery using radial incision for BCS aims to improve the surgical cosmetic outcome [6,7], which in turn restores the patient’s breast appearance and self-confidence. Using a multistep surgical technique caring of many details in every step: the radial elliptical incision with closure of the remaining glandular breast tissue along the vertical axis, together with subcuticular skin closure helps to give a minimal change in the breast shape and contour. Additionally, the nipple–areola complex of the affected breast side keeps the same level with the other side, so there is no change in its position, ending by subcuticular skin closure which results in a very thin suture line. All these procedures achieve a cosmetically acceptable result and decreases the psychological morbidity.

The very crucial achievement in this study is how to avoid the very bad effect of the tension happening over the suture line as a result of the breast weight, which causes mostly an ugly wide scar shape when using the transverse skin incision. The great advantage of the radial incision is whatever the weight of the remaining breast tissue, it does not make any change in the final scar shape even over a period of time. Radial incision also allows good vision for complete hemostasis [8-10].

CONCLUSION

Using radial incision during BCS in patients with early-stage breast cancer is found to be superior to other types of skin incisions, as it gives a very satisfactory cosmetic outcome to both the patient and the surgeon, and minimize the psychological trauma to these patients, as it gives a minimal change in the shape and contour of the remaining glandular breast tissue. The nipple–areola complex of the affected side being at the same horizontal line with the other normal side, together with an excellent suture line, its shape does not change over a period of time.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Rahuman GA. Breast Conserving therapy. *Journal of Surgical Technique and Case Report* 2011;3:1-4.
2. Pejhuis RG, Rafland M, De Vreis J, Bart J, De Jong JS. Obtain Adequate Surgical Margin in Breast Conserving Therapy for Patients with early Breast Cancer. *Ann Surg Oncol* 2009;16:271730.
3. Homers DR, Schooler W, Smith R. Oncoplastic Approaches to Breast Conservation. *International Journal of Breast Cancer* Volume 2011;Article ID 303879:16.
4. Petit J, Youssef O, Garusi C. *Oncoplastic and Reconstructive Surgery of the Breast.* (text book), 2004;10:101-108.
5. Waljee JF, Hu ES, Newman LA, Alderman AK. Predictors of breast asymmetry after breast conserving surgery. *Journal of the American college of Surgeons* 2008;206:274-280.
6. Munhoz AM, Aldrighi CM, Ferreira MC. Paradigms in Oncoplastic Surgery. *The Breast Journal* 2007;13:326-327.
7. Masetti R, Pirulli PG, Magno S, Franceschini G. Integration of plastic surgery in the course of breast-conservative surgery. *Breast Cancer* 2000;7:276-280.
8. Veronesi U, Luini A, Galimberti V, Zurrada S. Conservative approaches for the management of stage I/II cancer breast: *World Journal of Surgery* 1994;18:70-74.
9. Fitoussi MG, Conturand BRJ. *Oncoplastic and Reconstructive Surgery for Breast Cancer.* 5th ed., 2016. p. 8-11.
10. Amanti C, Regolo L. Total periareolar approach in breast cancer surgery 2003;89:127.