

## Study of Perspective of Breast Conservation Therapy in Patients of Carcinoma Breast

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### Abstract

**Objective:** To study the acceptance of Breast conservation therapy (BCT) versus Modified radical Mastectomy and the factors affecting the decision regarding the choice of surgery. **Methods:** 45 patients out of 135 patients of carcinoma breast were identified who were fit for BCT. All of them were counselled and educated with options available BCT and MRM along with forms which explained the decision making factors and grading according to LIKERT scale. **Results:** Out of 45 patients 12 patients (26.67%) accepted BCT. Fear for recurrence, fear for surgery and cost of radiotherapy were major factors for rejecting BCT which even overruled concern regarding body image. **Conclusion:** BCT can be accepted as a surgical choice for early breast carcinoma by many patients if awareness about early diagnosis and factors affecting decision making are addressed.

**Keywords:** Breast carcinoma, BCT.

### Introduction

*"The glory of medicine is that it is constantly moving forward and always there is more to learn."* {William J Mayo, MD}

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Cases of breast cancer have been recorded in medical writings for more than 5000 years. Two paradigms- "Breast cancer initially as local and regional disease or breast cancer initially as a systemic disease" - have affected the approach to detection and treatment of breast cancer throughout the history. The changes in surgical approach of Carcinoma Breast are the results of century long experience in different modalities of treatment, newer technologies and also the cultural and social aspect of the disease.

Mastectomy either radical or modified radical was the historical mainstay of treatment of breast cancer for decades. Though it is appropriate for some patients breast conservation therapy has become the preferred for many patients. National Cancer Institute (NCI) consensus conference in 1990 concluded that Breast Conservation Surgery (BCT) is an appropriate method of primary therapy for the majority of women with stage I and II breast cancer and is preferable because it provides survival equivalent to total mastectomy while preserving the breast. BCT was originally viewed with skepticism by surgeons and patients alike. Various studies have identified patient, hospital and surgeon related factors associated with BCT. Identifying these factors will be useful in targeting promotional and educational campaigns to increase the acceptance and use of BCT.

So in order to assess the views of patients for various treatment modalities this study was carried out to evaluate the acceptance of BCT Vs MRM for Carcinoma Breast and factors affecting their decision for the same.

### Aims and Objectives

1. To study the acceptance of breast conservation therapy versus modified radical mastectomy (BCT Vs MRM) in patients of carcinoma breast.
2. To study the factors affecting the acceptance of BCT in patients of carcinoma breast.

### Materials and methods

A prospective hospital based study of 45 patients of carcinoma breast feasible for BCT conducted for a period of two years.

Patients were evaluated with clinical examination followed by FNAC of the lump.

Further evaluation included Mammography and blood investigations. They were also subjected for investigations to rule out distant metastasis. All patients were started on Tab Tamoxifen 50 mg BD after diagnosis. Out of 45 patients 17 patients were early stage carcinoma and 33 were large operable carcinoma breast who were fit for BCT after neoadjuvant chemotherapy. (Group 1 and 2 respectively).

Patients were explained about the treatment options, BCT and MRM.

(MRM with breast reconstruction option was not given as it is not routinely available in our institution)

Various factors affecting the decision were explained and recorded in detail.

According to LIKERT SCALE, factors affecting decision were categorized as

- 5: Very important
- 4: Important
- 3: Moderately important
- 2: Of little importance
- 1: Not important

Factors explained to the patient were,

Fear for resurgery

Fear for recurrence

Fear for side effects of radiotherapy

Cost of radiotherapy (direct cost of radiotherapy and indirect cost of travel and stay to the center of radiotherapy).

Cosmesis (body image)

Influence of husband or any other person.

Neoadjuvant chemotherapy was given for candidates of BCT as removing the smaller amounts of tissue is still better cosmetically.<sup>1</sup>

Data was analysed by using statistical software SPSS. Unpaired t-test, chi square test and fisher exact test was used to analyse the data.

### Results

We studied total of 45 patients of carcinoma breast, 17 of early breast cancer (EBC) and 33 of locally advanced breast cancer (LOBC). All patients were feasible for BCT. Out of these 12 patients accepted BCT. Thus in our study acceptance of BCT was 26.67%. (for EBC 23.5% and LOBC 28.6%). 51.52% from MRM group belonged to grade 5 fear for resurgery. 23 out of 33 (69.70%) patients who accepted MRM had grade 5 fear of recurrence. Cost of radiotherapy was also important decision making factor for 81.82% patients choosing MRM. *p* value was 0.0001 for all three factors. Thus all these factors were major reasons for patients to reject BCT and accept MRM. Difference in fear for radiotherapy wasn't statistically significant between two group (*p* value=0.0008). Cosmesis and influence of husband or important relative was grade 5 importance for all those who accepted BCT. We also compared fear of recurrence and cosmesis. Out of 6 patients for whom both were the major concern 3 patients chose MRM due to unaffordability of radiotherapy and remaining three chose BCT due to influence of husband. When compared cost versus cosmesis, 7 patients for whom both were major concern chose MRM indicating cost plays major role in decision making. Age and marital status was also not significant in both the groups (Fig. 1 and 2).

### Discussion

Surgical treatment of carcinoma breast is like a double edged sword, radical excision is associated with extended morbidity and conservative approach with fear for recurrence. The fact that it has been modified from time to time among the all different ranges of radicality to lumpectomy, reflects that one particular surgery is not optimal for all patients.

Increase in use of breast conservation surgery (BCS) occurred after 1990 National Institute of health consensus Development Conference, which determined that BCS was preferable for early stage carcinoma breast patients.

At TMH Mumbai<sup>2</sup> cases undergoing BCT shows increasing trend from 12.6% to 59.3%, similar reports from Singapore<sup>3</sup> and USA<sup>4</sup>

When we compared the age group of the patient in our study, there was no statistically significant difference in both the groups. This was the same finding in many of the studies, like Mousavi R *et al.* in Iran<sup>5</sup> and also Nold *et al.*<sup>6</sup> Though as per S Molenaar *et al.* from Netherland<sup>7</sup> had found BCT being preferred in younger patients.

*Fear for resurgery:* Greer AL *et al.*<sup>8</sup> and Wu ZH *et al.*<sup>9</sup> observed that patient as well as surgeons wished to avoid recurrence and chose mastectomy over BCT. (Fig. 3)

*Fear for recurrence:* Nold *et al.*<sup>6</sup> and S Molenaar *et al.*<sup>7</sup> also mentioned that the fear for recurrence was by far the most important factor for rejecting BCT. Suzanne MJ<sup>10</sup> used Concern About Recurrence Scale (CARS) nad noted that majority of females had moderate fear for recurrence, and it revolved around possibility of death, pain, suffering and advancement of disease (Fig. 4).

*Fear for radiotherapy:* Though study by Nold and S Molenaar is comparable to our study, Ibid and K.R Sepucha *et al.*<sup>11</sup> found that side effects of radiotherapy and complexity of treatment in BCT made almost 1/3<sup>rd</sup> of the patient to choose MRM over BCT (Fig. 5).

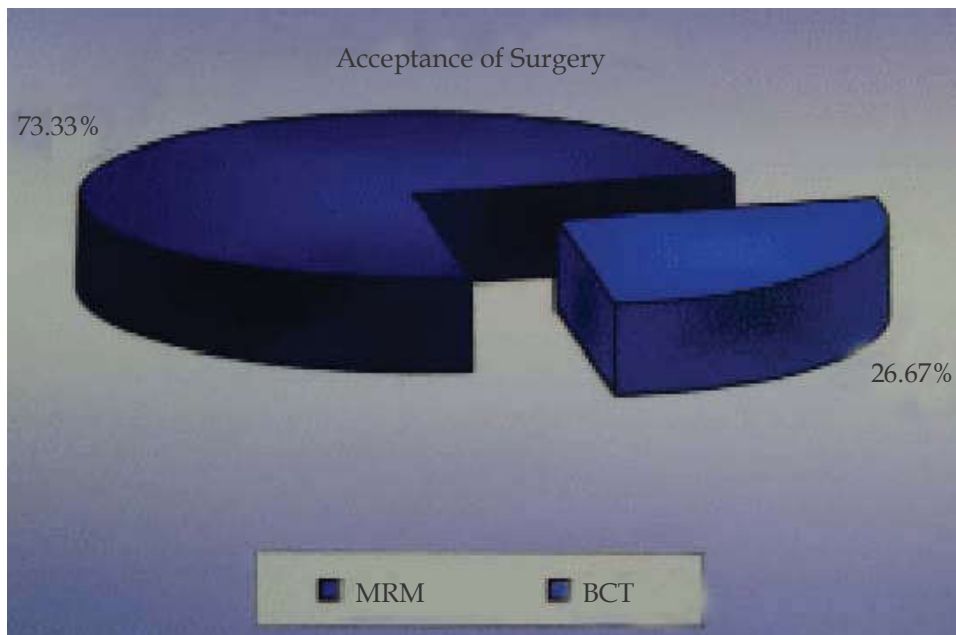


Fig. 1: Acceptance of Surgery



Fig. 2: Age Incidence

*Cosmesis:* Almost all studies support the fact that patients who chose BCT have body image concern R. Winn *et al.*<sup>12</sup> collected information from OLDER breast carcinoma patients as well

as surgeon factors and found positive co relation between desire to have no further treatment beyond surgery and MRM, and concern about body image and BCT (Fig. 6).

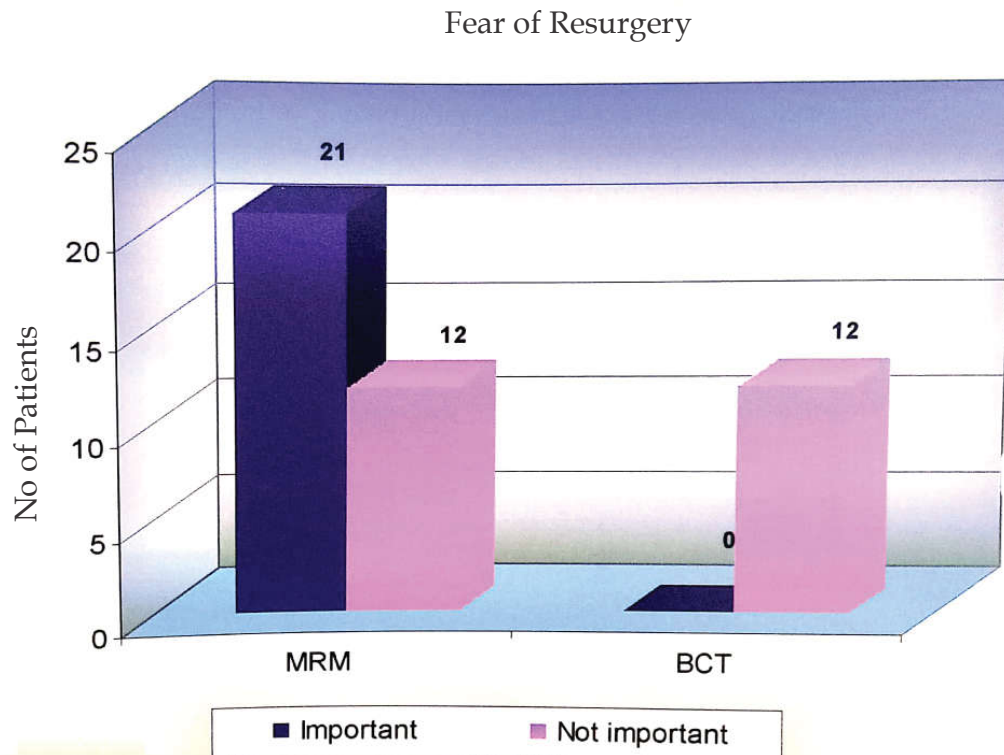


Fig. 3: Fear of Resurgery

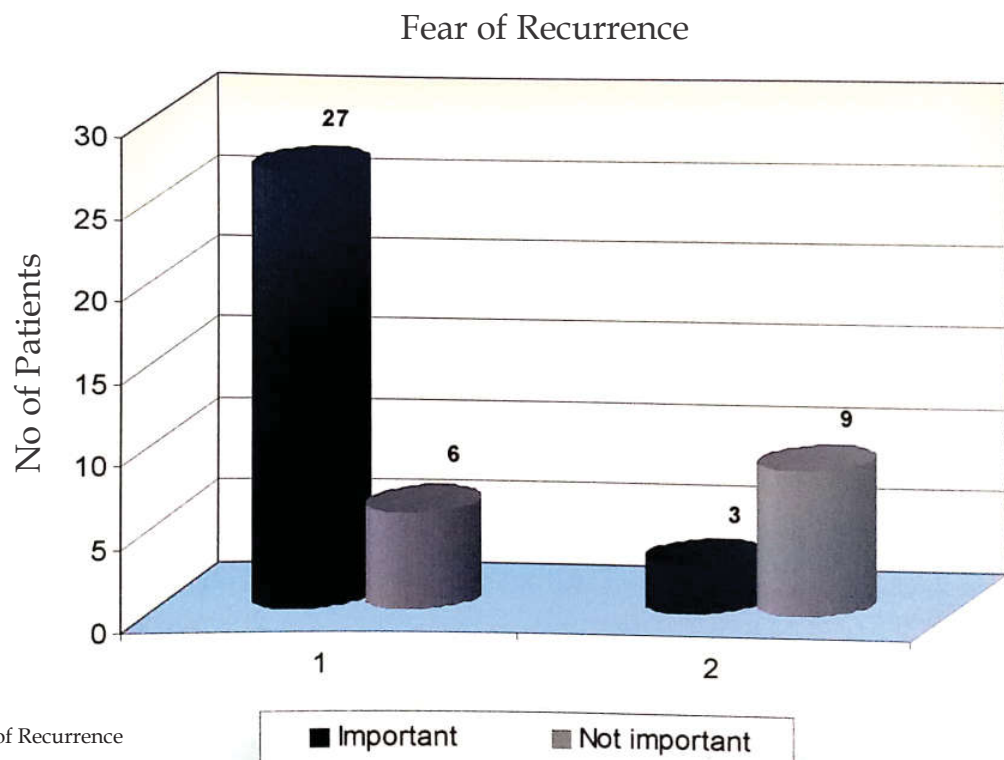


Fig. 4: Fear of Recurrence

Cost of radiotherapy: Ann Butler Nattinger *et al.*<sup>13</sup> found statistically significant decrease in accepting BCT if radiotherapy facility is more than 15 miles away from residence (Fig. 7).

Influence of husband or relative or for that matter even surgeon played very less role in choosing the type of surgery (Fig. 8).

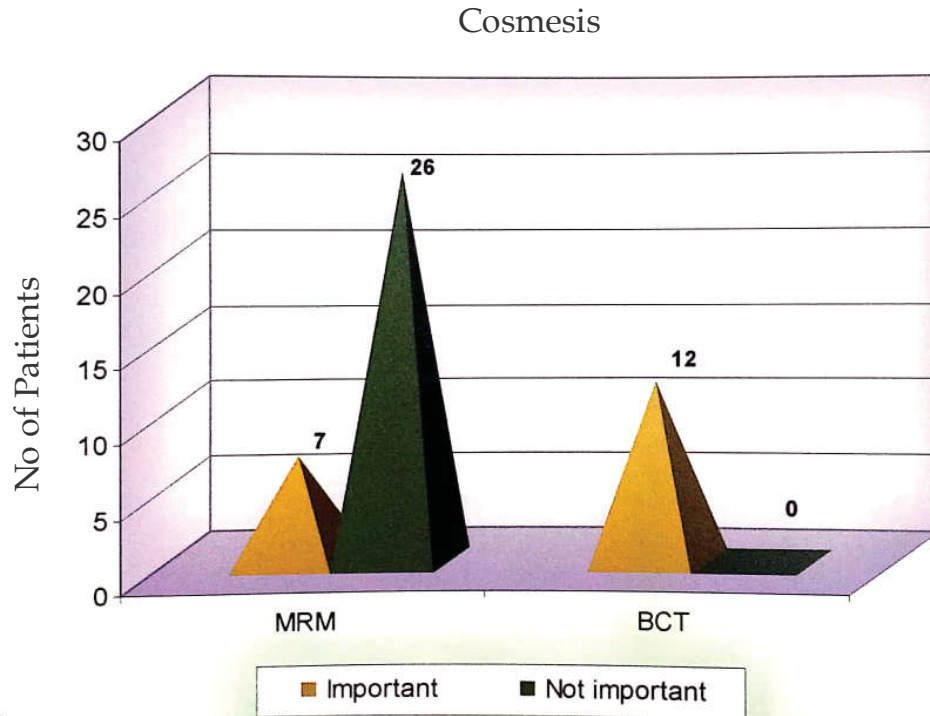


Fig. 5: Cosmesis (Body Image)

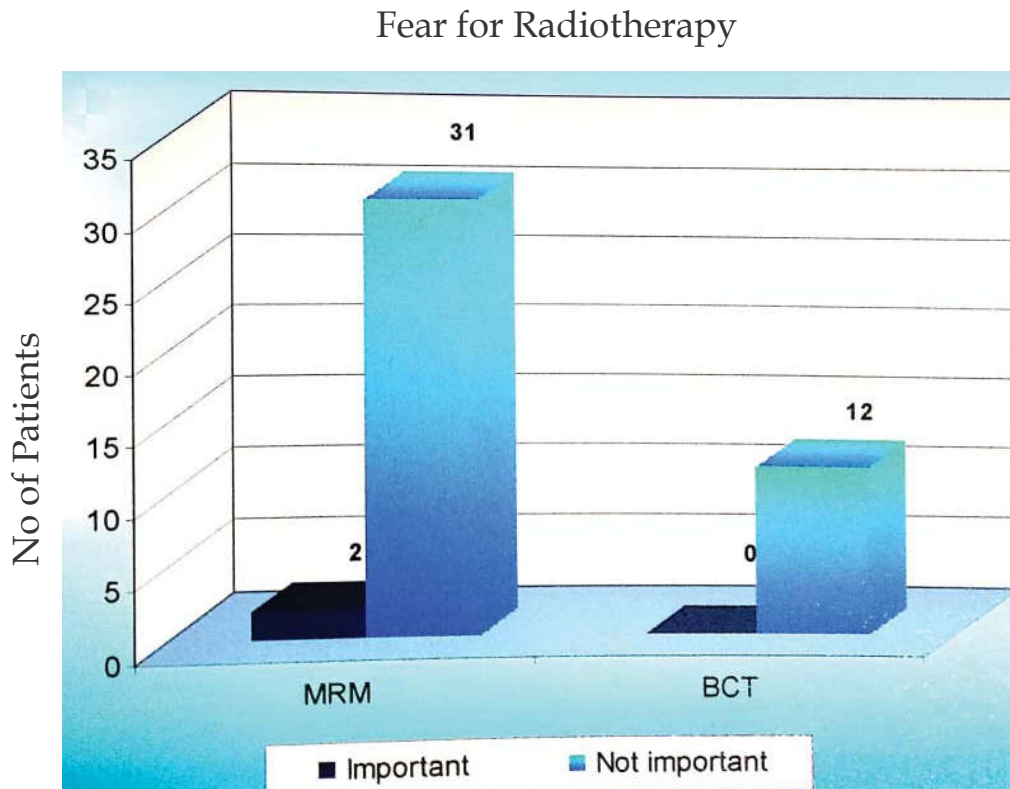


Fig. 6: Fear of Radiotherapy

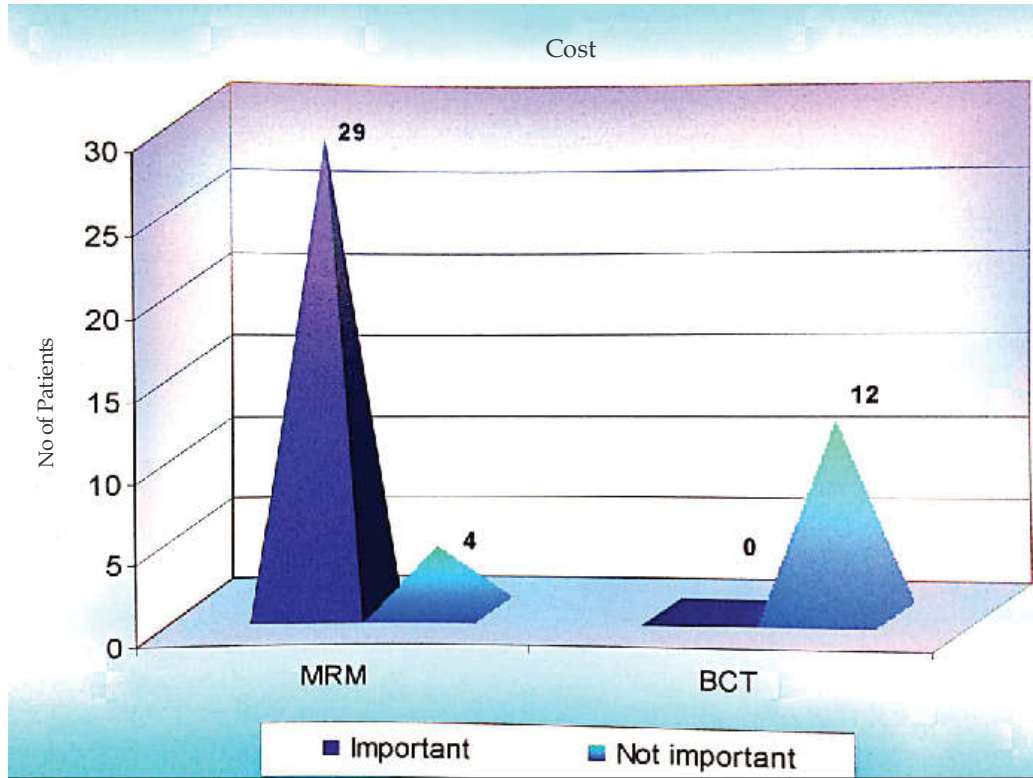


Fig. 7: Cost of radiotherapy

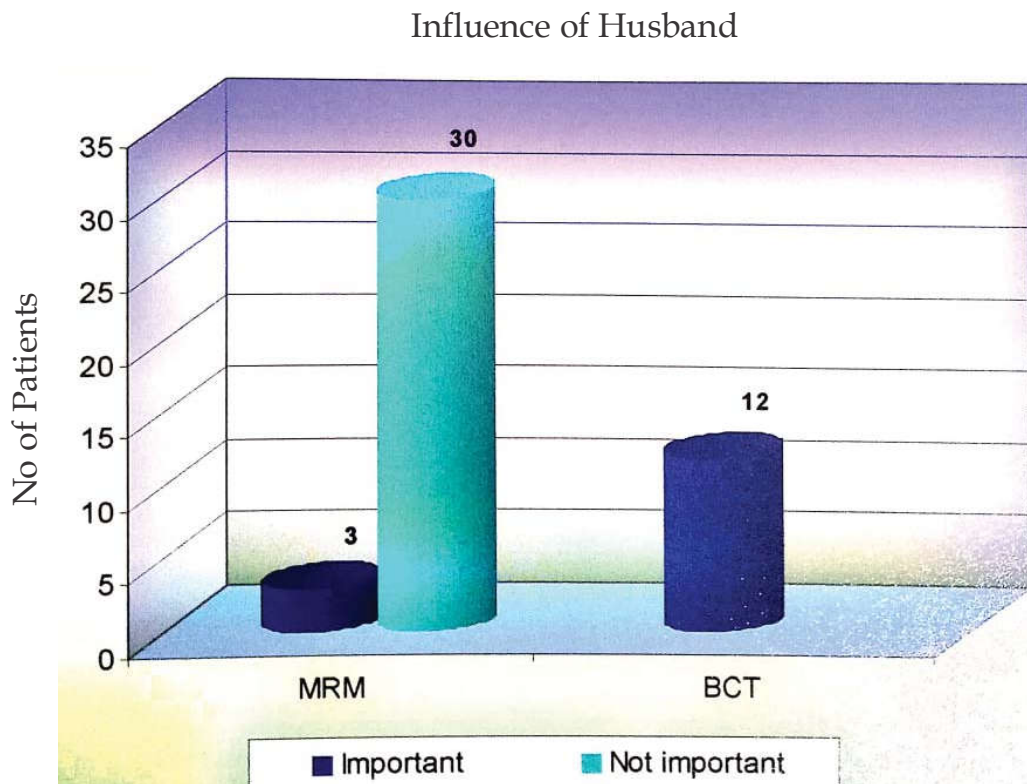


Fig. 8: Influence of Husband

## Conclusion

Out of 45 patients only 12 patients accepted BCT, So the percentage of patients accepting BCT is 26.67%.

All patients for whom there was fear for re-surgery (21/21) and major concern regarding the cost of radiotherapy (29/29) whereas majority of patients who had fear for recurrence (27/30) chose MRM. Patients who were concerned about cosmesis chose BCT but 7/45 patients chose MRM due to unaffordability of cost of radiotherapy even though they were concerned about the body image.

Thus fear for recurrence, fear for resurgery and the cost for radiotherapy incurred were the most important factors for rejecting the decision for BCT, which even over-ruled the concern regarding the body image. Age and marital status had no correlation for choice of particular type of surgery. Thus given a choice more and more patients can undergo BCT if factors affecting the decision making are addressed.

This requires

*Increase* in awareness of women for understanding carcinoma breast and its multimodality treatment.

*Increase* in awareness of self surveillance in caring one's body by self breast examination for early diagnosis.

*Increase* the awareness of authorities concerned to take care of factors related to radiotherapy.

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