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Original Research Paper

# Decision making in early breast cancer: Factors influencing patient's choice of surgery and its impact on psychosocial wellbeing and quality of life

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**ABSTRACT**:
**Background:** Breast conservation treatment (BCT) is the standard of care in early breast cancer, but acceptance of BCT has been slow in Indian women. However, much has changed in the landscape of breast cancer in India in the last two decades. To understand how decision-making dynamics have changed, this study was designed to evaluate factors which influence treatment decisions in patients with early breast cancer (EBC), and impact of their choice on psychosocial adjustment and quality of life. **Methodology:** This cross-sectional study was conducted on patients of EBC (N=137)who underwent surgery in a public healthcare setting during the period of 2018-2022. Patients were asked to fill up a self-designed questionnaire aboutfactors which influenced their choice of breast cancer surgery. BREAST Q (Psychosocialwellbeing) and FACT-B questionnaire, were used to assess their psychosocial adjustment and quality of life. **Results:** Amongst 96 participants who fulfilled inclusion criteria and completed the study, 43% had undergone breast conservation surgery (BCS), and 57% modified radical mastectomy (MRM).Awareness about surgical treatment options was generally low (36.5%).Patients undergoing BCS were younger and had higher socioeconomic status. As regards decision making, factors which mattered most included: surgeon's recommendation (76%) and expertise (78%); fear of recurrence after BCS (73%); concern about body image (62.5%); risk of re-do surgery (62.5%). Patients own choice, husband's advice, experience of others played equivocal role in making the decision, while concern about radiation, expense of treatment, or more complicated surgery mattered the least. BCS had a higher Breast Q mean score of 84.17±14.51 as compared to 72.81±15.92 of MRM group (p=0.0005). Women with BCS fared better on items about body image and confidence in social settings, but scored less on emotional health. However, as regards QOL, the mean FACT-B scores were 122.62±23.33 for BCS group and 120.32±16.41for MRM (p=0.57). **Conclusion:** BCS is finding increasing acceptance in the Indian patients. Surgeon's recommendation is the most decisive factor while making a decision. Though Psychosocial adjustment of patients with BCT is better, the overall QOL of patients choosing either type of treatment is comparable.

***Keywords: decision making in early breast cancer***

## INTRODUCTION:

Breast cancer is the most commonly diagnosed cancer in Indian women. In recent years, advances in the treatment of breast cancer and range of surgical options have made treatment selection a very complex process, in which the consideration of the patient's perspective is increasingly relevant. The decision-making process is often shared by the patient and her surgeon. Factors Influencing women's choice of breast surgery are diverse, including the woman's age, socio-economic status, concerns about body integrity, partner's preference, concerns about survival or cancer recurrence. An understanding of these influences on women's choice of breast cancer surgery is important, as this is crucial to the shared decision making process.

Patients with Early-stage breast cancer can undergo three different surgical interventions: breast-conserving surgery (BCS), modified radical mastectomy (MRM) alone, and MRM with immediate breast reconstruction (IBR) [1]. Several high-quality studies have reported that oncological outcomes for early-stage breast cancer patients are similar regardless of the type of surgery performed [2,3]. However, each intervention has a different impact on patients' psychosocial functioning [4]. Majority of research suggests that patients undergoing BCS enjoy better psychosocial functioning due to preservation of body image. However, picture is ambivalent when it comes to quality of life (QOL). While some studies report that BCS patients have a better QOL, many others haven't found much difference between the two choices and

some have even reported better QOL in mastectomy patients [5,6].

In the context of Indian scenario, scope of offering different treatment options to the patients has been limited, as the infrastructure and facilities for treatment of breast cancer vary widely. Patients usually present late and survival in the only priority. Preservation of body image is not a major concern and awareness about treatment options is very low. BCS is offered only at limited centers in India and is reported to be performed in only 11-23% of patients [7]

However, the landscape of breast cancer in India is witnessing important changes. Incidence of breast cancer has gone up significantly and a sharper rise is seen in younger women [8]. Advances in the management of breast cancer with more effective systemic therapies, improved survival rates, increasing public awareness, greater availability of skilled surgeons and rising patient expectations for better cosmesis are driving changes in the management of breast cancer [9]

There is paucity of data about how these factors have influenced the decision-making process in Indian patients and their satisfaction with the outcome. To answer some of these lacunae in the existing knowledge, this study was designed with the objectives:a) To study factors which influence the type of surgery in patients with EBC by using a self-designed questionnaire; b)To study the impact of type of surgery on the psychosocial adjustment using specific Breast Q V 2.0 © questionnaire (psychosocial well-being sub scale); c)To determine the impact of type of surgery on patient's QOL using FACT-B questionnaire

## MATERIAL & METHODS:

This Cross-sectional Descriptive study was conducted on patients of EBC ( stage I and II), over a period of 6 months (July – December 2023), in the Department of Surgery of a public healthcare setting in Delhi. Patients had undergone surgery between Jan 2018 – Dec 2022, and were in 6 months - 5 year follow up. All these patients were operated upon in a single surgical unit and were offered either BCS or MRM or MRM with IBR. A follow up interval of 6 months after surgery was kept to allow patients to complete adjuvant treatments and to eliminate acute after-effects of treatments on the outcome measures.

Institutional ethical clearance was obtained for the conduct of this study. Patients were contacted telephonically and invited for a follow upvisit to the hospital. A total of 137 patients underwent surgery during this period. Out of them 121 could be contacted. Seventeen expressed their inability to come and 104 patients came to hospital for follow up. All of them underwent detailed clinical assessment as per protocol. Women with serious co-morbid conditions, i.e., heart disease, liver problems, history of psychosis, dementia, or any other chronic illness and any evidence of recurrent or metastatic disease were excluded from the study. Finally, 96 patients who fulfilled the inclusion criteria and gave their informed consent participated in the study.

Details of socio demographic and clinical data were obtained from the patient's medical records and entered in a predesigned proforma. Psychosocial and cultural factors which influenced patient's choice for the type of surgery were assessed using a self-designed questionnaire with 12 items, and responses were recorded on a five point Likert scale. This questionnaire was developed after a thorough literature review of the subject and in consultation with subject experts. Patients' psychosocial adjustment with body image was assessed by using specific Breast Q V 2.0 © questionnaires (psychosocial well- being subscale, module breast cancer).Assessment of Quality of life was done by using FACT-B version 4 questionnaire. Patients were asked to fill out the respective questionnaires during their follow up visits and responses recorded in an Excel sheet.

The BREAST-Q© is a patient-reported outcome (PRO) measure designed to evaluate outcomes among women undergoing different types of breast surgery and is a self-administered questionnaire [10]. Conceptual framework of the BREAST-Q© modules is comprised of two overarching themes: 1) Health-Related Quality of Life (QOL) and 2) Patient Satisfaction. Under QOL domain, there are three subthemes: 1) Psychosocial, 2) Physical and 3) Sexual well-being. The Psychosocial Well-Being scale has items that ask about body image (e.g., accepting of body, feeling attractive) and a woman's confidence in social settings. Other items cover emotional health and self-esteem.The BREAST-Q© has been used widely and validated in a large number of studies [11]. The scores are computed by adding the response items together and then converting the raw sum scale score to a score from 0-100. For all BREAST-Q© scales, a higher score means greater satisfaction or better QOL.

Functional assessment of cancer therapy- Breast (FACT-B version 4) is a tool for measuring HRQOL in breast cancer patients and has both a generic part, Functional assessment of cancer therapy-General(FACT-G), and a breast cancer specific subscale (BCS). It has 36 items consisting of four general subscales: Physical well being (PWB); Social well being (SWB); Functional well being (FWB); and Emotional well being (EWB). The fifth subscale contains 9 items and is specific for breast cancer (BCS). The instrument has multiple scoring options: subscale scores, total score (FACT-B and FACT-G) and trial outcome index (TOI) which is the sum total of PWB, FWB and BC. Higher scores indicate a better quality of life. [12]

**Statistical Analysis:**

For the purpose of this study we clubbed patients of MRM+IBR with BCS patients, as both the choices were meant to preserve body image. So, for analysis we had two groups of patients (BCS group and MRM group). Simple descriptive statistics were used for percentages and mean scores ±SD. Association between type of surgery and different demographic and clinical factors was assessed using chi square test for qualitative parameters and student's t test for quantitative parameters. For analysis of self-designed interview,responses for items on Likert scale were divided into two groups - Agree and strongly agree in one group and Neutral, Disagree somewhat, and Disagree strongly into another. Data was analysed for probability of responses on this binomial model. Scoring of Breast Q psychosocial well-being score and FACT- B questionnaire was done as per specified guidelines. Association of scores with types of surgery was assessed by Unpaired t test and $p < 0.05$ was considered significant.

**RESULTS**:

As per hospital records, out of 137 patients with EBC, 56 (40.87) underwent BCT, 75 patients MRM (54.74%) and 6 patients MRM with IBR(4.37%). All reconstructions were based on autologous latissimus dorsi flap. Data of 96 patients who participated in this study showed that 55 patients underwent MRM, 39 patients BCS,and 2 patients MRM+IBR. It was noted that surgeons' recommendation was not always BCS for all patients with EBC. Out of the 55 patients who underwent MRM, BCS was not recommended to 32 (58%) patients. They probably were not considered good candidates in view of advanced age, high probability of margin positivity, possibility of poor compliance, and comorbidities like DM, obesity, hypothyroidism etc. Remaining 23 (42%) chose MRM despite the recommendation of BCS. So out of 96 patients of EBC, 73 were actually offered BCS and 41 patients (56.16 %)accepted it.Level I oncoplastic techniques were used in 18 patients while 21 underwent Level II techniques (15 Reduction mammoplasty and 6 perforator flap-based replacement). For management of axilla, most (77%) underwent level I and II lymphadenectomy and 28% patients underwent low axillary sampling. Follow up ranged from 7 months to 48 months, with mean duration of 27±5.2months.

**Demographic & clinical characteristics**:

Mean age in our study population was 45± 12.85 years and the age ranged from27-77years. Majority of patients in BCS (42%) belonged to a younger age group of 31-40 years, while in the MRM group majority (29%) belonged to 41-50years age group. (p=0.016). Socioeconomic status of majority of patients in BCS group was upper middle class (71%) while in MRM it was lower middle class (38%)(p=0.0009). Most of the patients had stage II breast cancer (82%). None of the patients received neoadjuvant chemotherapy. Adjuvant treatmentsreceived by patients in both the groups were also comparable.Demographic and clinical details of the study population are provided in Table 1.

**Table 1: Sociodemographic and clinical profile of the study population (n=96)**

| Demographic and clinical variables | | MRM (N=55) | BCS (N=41) | P value |
|---|---|---|---|---|
| **Age** | Mean (SD) | 47.28 (9.35) | 38.74 (8.53) | 0.0001 |
| **Religion** | Hindu | 39 ( 70.90%) | 28 ( 68.29%) | 0.72 |
| | Muslim | 14 (25.45%) | 10 (24.39%) | |
| | Christian | 2 (3.63%) | 3 (7.31%) | |
| **Education** | Illiterate | 9 (16.36%) | 3 (7.31%) | 0.40 |
| | Up to higher secondary | 33 (60%) | 26 (63.41%) | |
| | Graduate | 10 (18.18%) | 11 (26.82%) | |
| | Postgraduate | 3 (5.45%) | 1 (2.43%) | |
| **Socioeconomic status** | Lower | 11 (20%) | 1 (2.43%) | 0.000063 |
| | Upper lower | 5 (9.09%) | 1 (2.43%) | |
| | Lower middle | 21 (38.18%) | 7 (17.07%) | |
| | Upper middle | 12 (21.81%) | 29 (70.73%) | |
| | Upper | 6 (10.90%) | 3 (7.31%) | |
| **Marital status** | Married | 42 (76.36%) | 34 (82.92%) | 0.43 |
| | Unmarried | 13 (23.63%) | 7 (17.07%) | |
| **Tumor stage** | Stage I | 9 (16.36%) | 8 (19.51%) | 0.68 |
| | Stage II | 46 (83.63%) | 33 (80.48%) | |
| **Adjuvant treatments** | Radiotherapy | 48 (87.27%) | 41(100%) | N/A |
| | Chemotherapy | 33 (60%) | 17 (41.46%) | |
| | Hormonal therapy | 40 (72.72%) | 28 (68.29%) | |

**Factors influencing choice of surgery**:
Awareness about the type of surgical options wasgenerally low (36.5%), though patients undergoing BCS were more aware (48.78 % in BCS vs 27.27% in MRM). Factors which mattered most to patients in decision making included: surgeon's recommendation (76%) and expertise (78%); fear of recurrence after BCS (73%); concern about body image (62.5%); and risk of re-do surgery (62.5%). Patients own choice, husband's advice, experience of others played equivocal role in making the decision, while concern about radiation, expense of treatment, or more complicated surgery mattered the least.(Table.2)

**Table 2: Binomial distribution of responses on 5 point Likert scale regarding factors influencing choice of surgery (N=96)**

| Factors influencing choice of surgery (N= 96) | (NO) Responses: Not at all; A little bit; Somewhat N ( %) | (YES) Responses: Quite a bit; Very much N ( %) | P value |
|---|---|---|---|
| **Awareness about the options of surgery** | 61 (63.54%) | 35 (36.45%) | 0.0002 |
| **Involved in decision making** | 47 (48.95%) | 49(51.04%) | 0.77 |
| **Concern about body image** | 36 (37.5%) | 60 (62.5%) | 0.0006 |
| **Followed surgeon's recommendation** | 23 (23.95%) | 73(76.04%) | <0.0001 |
| **Knew surgeon's expertise** | 21 (21.87%) | 75 (78.12%) | <0.0001 |
| **Took husband's advice** | 50 (52.08) | 46 (47.91%) | 0.56 |
| **Influenced by experience of others** | 52 (54.16%) | 44 (45.83%) | 0.24 |
| **Fear of recurrence if only lump removed** | 26 (27.08%) | 70 (72.91%) | <0.0001 |
| **To avoid risk of a re-do surgery** | 36 (37.5%) | 60 (62.5%) | 0.0006 |
| **To avoid having radiation** | 89 (92.70%) | 7 (7.29%) | <0.0001 |
| **To reduce family burden** | 77 (80.20%) | 19 (19.79%) | <0.0001 |
| **To avoid discomfort or pain of more complicated surgery** | 84 (87.5%) | 12 (12.5%) | <0.0001 |

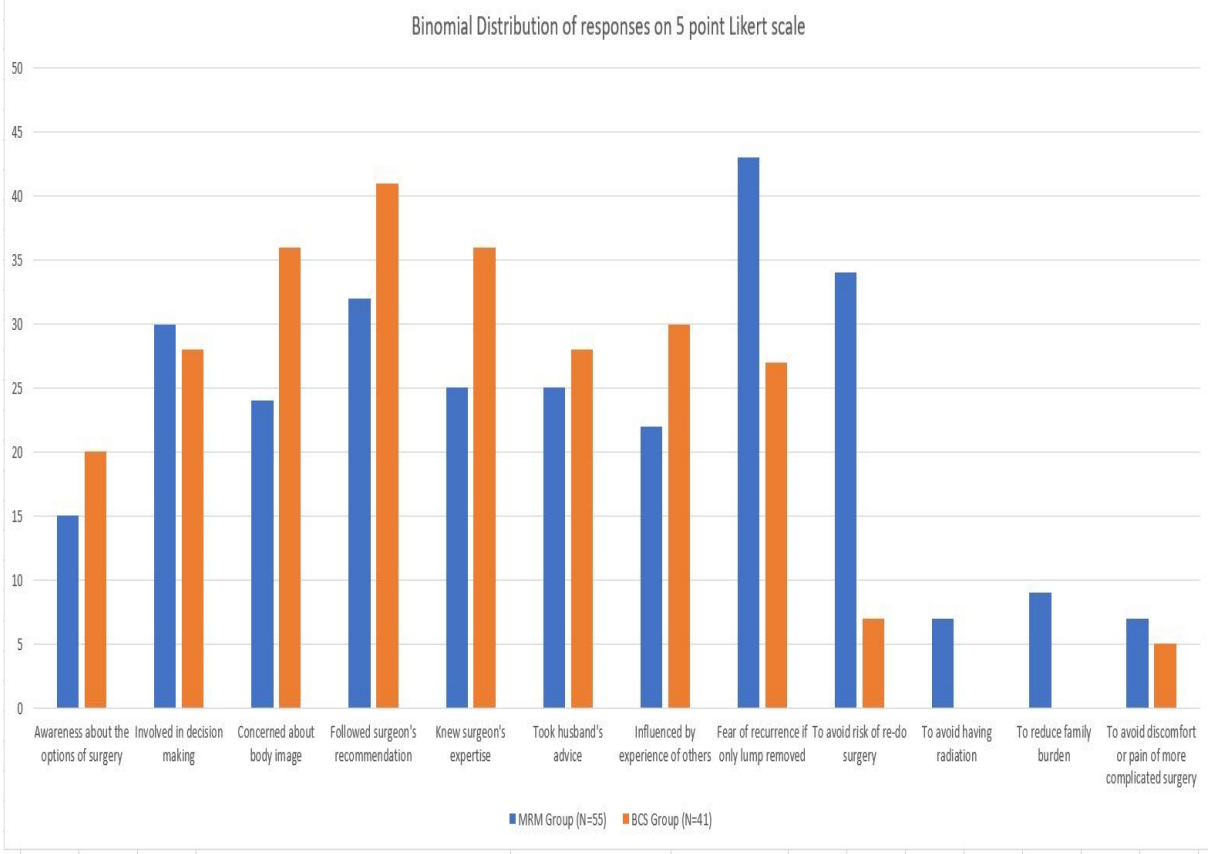
On analysis of patient's responses for MRM and BCS groups separately, the factors which mattered most when choosing BCS were: a) surgeon's recommendation (100%) and expertise (87.8%); patient's desire to preserve body image (87.8%); experience of other patients (73.17%); and support of spouse (68.29%). In the MRM group the important factors were; a) fear of recurrence after BCS (78.18%); fear of a re-do surgery (62%); surgeon's advise (58.81%). (Table no. 3, Figure 1) So even though the surgeons' recommendation was crucial, other factors too weighed in while choosing an option.

**Table 3: Comparison of factors influencing choice of surgery in MRM and BCS groups**

| Factors influencing choice of surgery (N=96) | MRM group (N=55) Responses: Quite a bit; Very much | BCS group (N=41) Responses: Quite a bit; Very much | P value |
|---|---|---|---|
| **Awareness about the options of surgery** | 15 (27.27%) | 20 (48.78%) | 0.03 |

| | | | |
|---|---|---|---|
| **Involved in decision making** | 30 (54.54%) | 28(68.29%) | 0.17 |
| **Concerned about body image** | 24 (43.63%) | 36 (87.80%) | <0.0001 |
| **Followed surgeon's recommendation** | 32 (58.81%) | 41 (100%) | <0.0001 |
| **Knew surgeon's expertise** | 25 (45.45%) | 36 (87.80%) | <0.0001 |
| **Took husband's advice** | 25 (45.45%) | 28 (68.29%) | 0.0268 |
| **Influenced by experience of others** | 22 (40%) | 30 (73.17%) | 0.0013 |
| **Fear of recurrence if only lump removed** | 43 (78.18%) | 27 (65.85%) | 0.18 |
| **To avoid risk of re-do surgery** | 34 (61.81%) | 7 (17.07%) | <0.0001 |
| **To avoid having radiation** | 7 (12.72%) | 0 (0%) | 0.01 |
| **To reduce family burden** | 9 (16.39%) | 0 (0%) | 0.0067 |
| **To avoid discomfort or pain of more complicated surgery** | 7 (12.72%) | 5 (12.19%) | 0.93 |

**Figure 1**:



**Effect of type of surgery on psychosocial adjustment**:
Patient's psychosocial adjustment with body image was found to be better in the BCS group (mean scoreof 84.17±14.51) as compared to MRM group (72.81±15.92) (p= 0.0005). Women in the BCS group had significantly better scores on items: Confident in a social setting; Self- confident; Feminine in your clothes; while "Emotionally healthy" was the least scoring item.Women in both the groups had good self-esteem and considered themselves to be like other women and of equal worth.(Table 4).

**Table 4: Breast Q -psychosocial well-being subscale scores for the two groups of patients**

| Subscale items | MRM Mean±SD | BCS Mean±SD | p-value |
|---|---|---|---|
| A. Confident in a social setting? | 2.6±0.96 | 3.38±0.94 | 0.0001 |
| B. Emotionally able to do the things that you want to do? | 2.8±1.1 | 3.1±0.96 | 0.13 |
| C. Emotionally healthy? | 3.0±0.97 | 2.9±0.85 | 0.56 |
| D. Of equal worth to other women? | 3.1±0.88 | 3.45±0.95 | 0.04 |
| E. Self confident? | 2.8±1.05 | **3.6**±0.92 | 0.0001 |
| F. Feminine in your clothes? | 2.5±0.99 | 3.2±0.93 | 0.0003 |
| G. Accepting of your body? | **3.7**±1.12 | **3.9**±1.08 | 0.34 |
| H. Normal? | 3.6±0.85 | **3.7**±0.89 | 0.4 |
| I. Like other women? | 3.2±0.96 | 3.4±0.99 | 0.36 |
| J. Attractive? | 2.27±1.06 | 2.96±1.14 | 0.014 |

**Quality of life assessment**:
All FACT- B scores (FACT -B Total score, FACT-G score, TOI and subscale scores) were comparable in both the group of patients.(Table 5) Social well-being score of BCS patients was higher than MRM group, but not statistically significant.Thus, quality of life as a whole was similar among patients undergoing either type of surgery

**Table 5: Quality of life scores as measured on FACT-B questionnaire in the two group of patients**

| Questionnaire | MRM (N=55) Mean ± SD | BCS (N=41) Mean ± SD | P value |
|---|---|---|---|
| **PWB(SD)** | 23.96±4.5 | 23±6.7 | 0.40 |
| **SWB(SD)** | 25.12±4.01 | 29.9±2.27 | 0.26 |
| **EWB(SD)** | 18.58±4.15 | 18±6.2 | 0.58 |
| **FWB(SD)** | 23.14±4.01 | 24±4.5 | 0.32 |
| **BCS(SD)** | 29.69±5.68 | 30.90±7.61 | 0.37 |
| **TOI** | 76.80±11.60 | 78.34±17.35 | 0.60 |
| **FACT- G score(SD)** | 90.80±11.95 | 91.72±16.62 | 0.75 |
| **FACT- B total score (SD)** | 120.32±16.41 | 122.62±23.33 | 0.57 |

## DISCUSSION:

One of the encouraging results of this study is the finding of much higher rates of BCS in our patient population (41%) than what has been reported in the Indian studies(11-23%) so far. This can be attributed to multiple factors. Awareness about breast conservation as a treatment option has improved over the years. There is greater proportion of younger women in the patient population who cherish a preserved body image more than older women. As per the findings in our study, factors which favored breast conservation treatment were younger age of the patients, higher socioeconomic status, surgeon's recommendation and expertise, desire to preserve body image and support of spouse. Similar results have been reported by other researchers as well [13-16]. Further availability of required surgical skills and facilities for adjuvant treatments in the public healthcare setting, where cost to the patient is not much of a consideration also helped patients choose BCS.

One of the most crucial factor that matters is the surgeon's advice and remains the overarching theme in all the studies reported in Indian and Asian women [13]. There are many reasons to it and first and foremost is the deep rooted tendency in Indian culture to look for a savior in a situation of crisis, rather than take charge of the situation personally. So, more effort is made to identify a surgeon with a reputation rather than understanding the nitty gritty of treatment. To further complicate the matters is the plethora of information on the internet which can be confusing to patients. Concepts such as local recurrence or disease-free survival are barely understood as the patients are not in a mental state to process much information. Hence mostly it is left to the discretion of the surgeon to decide what is best for them. In a study of north Indian

women with EBC, it was found that only 10% women participated independently in the decision making regarding the type of surgery [13] as compared to 41.0% women in the developed countries [14]. Shared decision making practice in the west mandates it for the surgeons to provide all the information about the surgical options to the patient and allow patient to choose rather than make suggestions about what kind of surgery should be done [15]

Fear of recurrence after BCS was the next important theme when making treatment decisions and is a tricky issue to address [16]. The data which shows comparable outcome of MRM vs BCT is from high resource settings. The facilities available there can't be matched in public healthcare settings in developing economies, where delays are unavoidable and continuity of treatment always vulnerable. For women choosing conservation, collective influence of other factors weighed more heavily than their fear of recurrence. Younger age and better socioeconomic status gave them more courage to accept a modest risk of recurrence or re-do surgery

Concern about body image was the next most decisive factor in choice of surgery and mattered more to younger women. Given a choice even older women want to preserve their organ, as is evident from the study by Agrawal et al where 80% of women in MRM arm stated that they would have liked to conserve their breast [13]. But when it is the trade-off between safety and appearance, older women tend to choose a surgical procedure considered safer. Body image is a far more important factor for women in the developed world, as this is a defining feature of their life style and intricately linked to sexuality and social roles. Indian women with their more conservative style of dressing up, and greater sense of security in their family roles of a mother and nurturer, are much less concerned about issues of sexuality and intimacy.

Regarding other factors, good aesthetic results in patients undergoing BCS due to availability of oncoplastic breast surgery (OPBS) techniques was another favorable factor for higher acceptance of BCT in this study. OPBS is a cost- effective option and very suitable for low resource settings where options of breast reconstruction with implants or microvascular surgery based free flaps are not readily available [9].

Factors such as concern about radiation, expense of treatment, or more complicated surgery mattered the least in this study. Concern about radiotherapy was not there as patients did not know much about the "how and why" of this treatment modality. However, RT is reported to be an important consideration in many other studies for reasons of multiple hospital visits and side effects of treatment [16]. Further highly subsidised cost of treatment in public healthcare setting also helped patients make a choice for BCS.

As regards psychosocial adjustment**,** BCS patient had a better psychosocial well- being than MRM patients.Patients in the BCS group felt more self-confident, and feminine in their clothes. The psychological advantage of BCS patients about their body image has been reported by most other studies as well [17,18]. However, inspite of a better body image, the emotional well- being item in BCS patients was rated poorly and betrays some lingering fear of recurrence. Probably pain or an area of induration after BCS gives rise to significant anxiety about a fear of recurrence. In social conversations too, stories of cancer coming back makes them feel insecure.

However, QOL was found to be independent of the type of surgery as the various scores and sub-scores of FACT-B were comparable in both the groups. Other reports in Indian patients too have shown similar outcomes. Gadgil et al in Mumbai reported that QOL scores in all women dipped during the treatment period in all sub scales, but at the end of 5 years, there was no statistically significant difference between the MRM and BCT groups [5]. Padhi et al in their study in eastern India patients found that both groups (MRM and BCS) had coped well with physical, psychological, social and spiritual wellbeing related issues and there was no difference on these QOL parameters after 1-year of completion of treatment [19]. Even western data is ambivalent about the impact of type of surgery or even reconstruction on patients' overall QOL and many studies have reported similar QOL outcomes irrespective of type of breast cancer surgery [6,20]. Furthermore, BCS was found to be associated with lower physical well-being with more pain and discomfort in the chest area and poorer sexual well-being outcomes [20]

## STRENGTHS & LIMITATIONS OF THIS STUDY:

Results of this study show enhanced acceptance of BCT inpatients with EBC and highlight the importance of surgeon's key role in the decision making process, besides other factors. However, limitations of this study are that it included patients coming to a single surgical unit where surgeons' expertise is well known and treatment is highly subsidized. Hence generalisability of these findings is limited. The data are also subject to recollection and memory biases. Most women had made their surgical decision at least 1-2 years before being interviewed and may not reflect the experiences of women who made the decision more recently.

## CONCLUSION:

Shared decision making is still not the current practice for Indian women and patients generally choose

surgeons over information when deciding about surgery. Hence, it is important for the surgeon to make a recommendation not solely based on tumor characteristics but also factor in patients' values and expectations, financial situation and resources and help women think through their situation to make a choice they won't regret. Though BCT leads to better Psychosocial adjustment, the overall QOL of patients choosing either type of treatment is comparable.

**REFERENCES:**


1. Pusic A, Thompson TA, Kerrigan CL, et al. Surgical options for the early-stage breast cancer: factors associated with patient choice and postoperative quality of life. PlastReconstr Surg.1999;104(5):1325–33.
2. Fisher B, Anderson S, Bryant J, et al. Twenty-year follow-up of a randomized trial comparing total mastectomy, lumpectomy, and lumpectomy plus irradiation for the treatment of invasive breast cancer. N Engl J Med. 2002;347(16):1233–41.
3. Arriagada R, Le MG, Guinebretiere JM, Dunant A, Rochard F, Tursz T. Late local recurrences in a randomised trial comparing conservative treatment with total mastectomy in early breast cancer patients. Ann Oncol. 2003;14(11):1617–22.
4. Carter SA, Lyons GR, Kuerer HM, et al. Operative and oncologic outcomes in 9861 patients with operable breast cancer: single institution analysis of breast conservation with oncoplastic reconstruction. Ann SurgOncol. 2016;23(10):3190–98.
5. Deepa KV, Gadgil A, Löfgren J et al. Is quality of life after mastectomy comparable to that after breast conservation surgery? A 5 year follow up study from Mumbai, India. Quality of Life Research 2020 Mar;29(3):683-692
6. Słowik A, Jabłoński M, Michałowska-Kaczmarczyk A, Jach R. Evaluation of quality of life in women with breast cancer, with particular emphasis on sexual satisfaction, future perspectives and body image, depending on the method of surgery. Psychiatria Polska. 2017;51(5):871-888.
7. Agarwal G, Ramakant P, Forgach ER, Rendón JC, Chaparro JM, Basurto CS, et al. Breast cancer care in developing countries. World J Surg 2009;33:2069-76
8. Mehrotra R, Yadav K. Breast cancer in India: Present scenario and the challenges ahead. World J Clin Oncol. 2022 Mar 24;13(3):209-218. doi: 10.5306/wjco.v13.i3.209. PMID: 35433294; PMCID: PMC8966510.
9. Koppiker CB, Chintamani, Dixit S. Oncoplastic Breast Surgery in India: Thinking Globally, Acting Locally. Indian J Surg 2019; 81: 103-110 [DOI: 10.1007/s12262-019-01890-8]
10. Pusic AL, Klassen AF, Scott AM, Klok JA, Cordeiro PG, Cano SJ. Development of a new patient-reported outcome measure for breast surgery: the BREAST-Q. Plast Reconstr Surg 2009;124:345–353
11. Kaur, M.N., Chan, S., Bordeleau, L. et al. Re-examining content validity of the BREAST-Q more than a decade later to determine relevance and comprehensiveness. J Patient Rep Outcomes 7, 37 (2023).
12. Webster K, Cella D, Yost K. The functional assessment of chronic illness therapy ( FACIT) measurement system: properties, applications, and interpretation. Health Qual Life Outcome 2003;1:79. https://doi.org/10.1186/1477 7525-1-79
13. Agrawal S, Goel AK, Lal P. Participation in decision making regarding type of surgery and treatment-related satisfaction in North Indian women with early breast cancer. J Can Res Ther 2012;8:222-5.
14. Katz SJ, Lantz P, Zemencuk J. Correlates of surgical treatment type for women with noninvasive and invasive breast cancer. J Womens Health Gend Based Med 2001;10:659-70.
15. Dicks E, Roome R, Chafe J, Powell E, McCrate F, Simmonds C, Etchegary H. Factors influencing surgical treatment decisions for breast cancer: a qualitative exploration of surgeon and patient perspectives. Curr Oncol. 2019 Apr;26(2):e216-e225.
16. Lam WW, Fielding R, Ho EY, et al. Surgeon's recommendation, perceived operative efficacy and age dictate treatment choice by chinese women facing breast cancer surgery.psycho-oncology 14: 585–593 (2005)
17. Retrouvey H, Kerrebijn I, Metcalfe KA. Et al. Psychosocial Functioning in Women with Early

Breast Cancer Treated with Breast Surgery With or Without Immediate Breast Reconstruction.AnnSurgOncol (2019) 26:2444–2451.

18. Rosenberg S, Dominici L, Gelber S, Poorvu P, Ruddy K, Wong J et al. Association of Breast Cancer Surgery With Quality of Life and Psychosocial Well-being in Young Breast Cancer Survivors. JAMA Surgery. 2020;155(11):1035.
19. Padhi S. Effect of types of surgery on Quality of life of breast cancer patients, a study from eastern India. Azerbaijan medical journal [internet]. 2022;62(3):997-1006
20. Howes B, Watson D, Xu C, Fosh B, Canepa M, Dean N. Quality of life following total mastectomy with and without reconstruction versus breast conserving surgery for breast cancer: A case-controlled cohort study. Journal of Plastic, Reconstructive & Aesthetic Surgery. 2016;69(9):1184-1191.