

Original Research Article

# Quality of life assessment after modified radical mastectomy in early breast cancer

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## Abstract

**Background:** Modified radical mastectomy performed for CA breast is a life modifying surgery for most women. It creates a profound impact on the quality of life enjoyed by the women. The magnitude of change in quality may pave the way for more conservative surgery in the future.

**Aim:** To assess the quality of life in patients undergoing modified radical mastectomy for early breast cancer.

**Materials and methods:** This was a prospective study consisting of 50 patients who underwent modified radical mastectomy in our institution from 2013-2015 for early breast cancer. Quality of life was assessed 6 months after surgery using a translated version of a customized questionnaire, which was based on the Royal College of surgeons' questionnaire.

**Results:** In our study, the most common age group was found to be between 51-60 years (24). Most patients (30) had poor quality of life with 19 patients having an average quality of life. 23 patients with poor quality of life were from the lower socioeconomic class. 47 patients (94%) did not have any restriction of daily activities. Most of the patients (49) had mild pain and discomfort. Among the patients experiencing mild pain 59% (29 patients) had poor quality of life. Severe psychological impairment was present in 30 of our study population and was associated with poor quality of life in 29 cases (97%). 34 patients in the study population were not satisfied with their body image and was associated with poor quality of life in 30 (88%) of the cases. 27 patients in the study group were not satisfied with their sexual life and it was associated with poor quality of life in 23 (85%) of the patients.

**Conclusion:** From this study we have concluded that the quality of life is poor in majority of the patients undergoing modified radical mastectomy for early breast cancer with most of the patients

having psychological impairment, unsatisfied body image perception, unsatisfied sexual life and mild pain. In addition to these factors socioeconomic status of the patient also affects the quality of life in these patients.

## Key words

CA Breast, MRM, Quality of Life, Early Breast cancer.

## Introduction

Breast cancer is one of the leading causes of cancer in women all over India. Incidence statistics have been increasing over the last decades, for both premenopausal and postmenopausal women [1]. Breast conservative surgery is the standard treatment for early breast cancer in the western world [2]. Breast conservative surgery is not preferred in India. The reason for opting to modified radical mastectomy is concern about recurrence.

Although mortality rates in breast cancer are declining, many breast cancer survivors will experience physical and psychological sequelae that affect their everyday life. Few prospective studies have been done and little is known about the quality of life in this population.

The research on quality of life in breast cancer patients has been predominantly focused on the western world and has yielded mixed results. However, there is paucity of quality of life data in Indian patients. Due to the increasing incidence of breast cancer in Indian population, it is imperative to consider the quality of life experienced by our patients after treatment.

The assessment of quality of life after modified radical mastectomy for early breast cancer patients using a questionnaire have shown that majority of the patients experience poor quality of life.

## Aim

To assess the quality of life after modified radical mastectomy in early breast cancer patients using a translated customized self-designed questionnaire.

## Materials and methods

The first 50 female patients undergoing modified radical mastectomy for early breast cancer in the Department of general surgery, Stanley Medical College and Hospital between 2013 to 2015 were selected for the study.

**Sample size:** 50

**Questionnaire used for the study**

**Daily activities**

1. I need help preparing meals - yes/ no
2. I need help doing laundry - yes/ no
3. I need help washing myself and dressing myself - yes/ no

**Psychological aspect**

1. Confident in a social setting-none/most of the time
2. Emotionally healthy-none/most of the time
3. Accepting of your body-none/most of the time

**Pain**

1. Shoulder/arm pain-none/most of the time
2. Difficulty lifting/moving your arms-none/most of the time
3. Sleep disturbance due to breast discomfort-none/most of the time
4. Swelling of arm on the side of surgery-none/most of the time

**Body image**

1. How do I look in the mirror clothed-satisfied/dissatisfied
2. How do I look in the mirror unclothed-satisfied/dissatisfied

**Sexual life**

1. Sexually attractive in your clothes-none/most of the time
2. Sexually attractive when unclothed-none/most of the time

3. Satisfied with your sexual life-none/most of the time

## Results

The maximum number of patients was in the age group of 51-60 years with the least number in the 30-40 years age group (**Table – 1**).

**Table – 1:** Age Distribution.

Age Group (Year)	Number of Patients
30-40	5
41-50	21
51-60	24

In our study patients with scores 6 and less were considered as having poor quality of life, scores 7 to 11 as average quality of life and scores 12-15 as good quality of life. As per this study 60% (30) patients have poor quality of life, 38% (19) patients have average quality of life and 2% (1) patients have good quality of life (**Table – 2**).

**Table – 2:** Quality of Life (QOL).

Quality of Life	Number of Patients
Good	1
Average	19
Poor	30

In our study only one patient had good quality of life and that patient comes under 41-50 years of age (**Table – 3**).

**Table – 4** shows the age distribution of patients with average quality of life, with maximum number of patients with average quality of life (11) were under 41-50 years age group and the least (3) in 30-40 years age group. In our study the number of patients with poor quality of life in 30-40 years, 41-50 years, 51-60 years were 4, 8 and 18 respectively (**Table – 5**).

**Table – 3:** Age Distribution of Patients with Good Quality of Life.

Age Distribution	Number of Patients
30-40	0
41-50	1
51-60	0

**Table – 4:** Age Distribution of Patients with Average Quality of Life.

Age Distribution	Number of Patients
30-40	3
41-50	11
51-60	5

**Table – 5:** Age Distribution of Patients with Poor Quality of Life.

Age Distribution	Number of Patients
30-40	4
41-50	8
51-60	18

In this study 1 patient with good quality of life was from medium socioeconomic status (**Table – 6**).

**Table – 6:** Socioeconomic status of Patients with Good Quality of Life.

Socioeconomic Status	Number of Patients
High	0
Medium	1
Low	0

**Table – 7:** Socioeconomic status of Patients with Average Quality of Life.

Socioeconomic Status	Number of Patients
High	0
Medium	10
Low	9

In our study 47% (9) patients with average quality of life were from low socioeconomic status, 53% (10) patients were from medium socioeconomic status, with none from high socioeconomic status (**Table – 7**).

In our study 77% (23) patients with poor quality of life were from low socioeconomic status, 23% (7) patients with poor quality of life were from medium socioeconomic status, with none from high socioeconomic status (**Table – 8**).

**Table – 9** showed the no of patients having restriction in daily activities. In our study 47 patients had no restriction of daily activities and

3 patients had mild restriction of daily activities. Patients who had scored 1 and 2 in this section in the questionnaire are considered to have mild restriction, scores 0 and 3 are considered to have severe and no restriction of daily activities respectively.

**Table – 8:** Socioeconomic status of Patients with Poor Quality of Life.

Socioeconomic Status	No of Patients
High	0
Medium	7
Low	23

**Table – 9:** Severity of Activity Restriction.

Restriction of Daily Activities	No of Patients
No Restriction	47
Mild Restriction	3
Severe Restriction	0

In our study, patients who scored 0 and 1 in this section of the questionnaire were considered to have severe and mild psychological impairment respectively. Patients who scored 2 had no impairment. In our study maximum number of patients has severe psychological impairment (30 patients). The number of patients with no and mild impairment are 5 and 15 respectively (**Table – 10**).

**Table – 10:** Psychological Impairment Distribution.

Psychological Impairment	Number of Patients
None	0
Mild	15
Severe	30

Patients with severe psychological impairment with their quality of life were as per **Table - 11**. In our study 97% (29 patients) with severe psychological impairment have poor quality of life and 3% (1 patient) with severe psychological impairment have average quality of life with none of the patients having good quality of life.

**Table – 11:** Correlation of Severe Psychological impairment with Quality of Life.

Quality of Life	Number of Patients
Good	0
Average	1
Poor	29

In our study patients who scored 0 and 1 in this section in the questionnaire were considered having severe pain, scores 2 and 3 were considered as having mild pain and score 4 were considered as having no pain. In this study 49 patients had mild pain and only one patient had severe pain (**Table – 12**).

**Table – 12:** Patients with pain.

Pain	Number of patients
No pain	0
Mild pain	49
Severe pain	1

Patients with mild pain with their quality of life were as per **Table - 13**. In our study, 59% (29) of patients with mild pain have poor quality of life, 39% (19) of patients with average quality of life and 2% (1) patients have good quality of life.

In this study, patients with scores 2, 1 and 0 in this section of the questionnaire were considered to be satisfied, partially satisfied and not satisfied in body image perception respectively. Maximum number of patients (34) was not satisfied, 14 patients were partially satisfied and 2 patients were completely satisfied in body image perception as per our study (**Table – 14**).

**Table – 13:** Correlation of pain with Quality of Life.

Quality of Life	Number of Patients
Good	1
Average	19
Poor	29

Patients who were not satisfied in their body image perception with their respective quality of life were as per **Table - 15**. In our study 88% (30) of patients who were not satisfied in their

body image perception have poor quality of life and 12% (4) of patients have average quality of life with none having good quality of life.

**Table – 14:** Body Image perception distribution.

Body Image Perception	Number of Patients
Satisfied	2
Partially satisfied	14
Not Satisfied	34

**Table – 15:** Correlation of Lack of body image satisfaction with Quality of Life.

Quality of Life	Number of Patients
Good	0
Average	4
Poor	30

**Table – 16:** Satisfaction with Sexual life.

Sexual life satisfaction	Number of Patients
Satisfied	1
Partially satisfied	18
Not satisfied	27
Not disclosed	4

**Table – 17:** Correlation of lack satisfaction with sexual life and Quality of Life.

Quality of life	Number of Patients
Good	1
Average	4
Poor	23

Patients with scores 3, 1 and 2, 0 in this section of the questionnaire were considered satisfied, partially satisfied and not satisfied in their sexual life respectively. Maximum number of patients (27) were not satisfied, the number of patients who were partially and completely satisfied in their sexual life were 18 and 1 respectively. 4 patients were not willing to disclose about their sexual life (**Table – 16**).

Patients who were not satisfied in their sexual life with their respective quality of life were as per **Table – 17**. 85% (23) of patients who were not satisfied in their sexual life have poor quality of life and 15% (4) of patients who were not

satisfied in their sexual life have average quality of life with none of the patients having good quality of life.

## Discussion

In our study, almost all the patients were from underprivileged section of the society. As per the age distribution of the disease and the quality of life, in this study 80% of the patients under 40 years of age have poor quality of life and 75% of the patients between 51-60 years had poor quality of life. This has been supported by a study by park and his colleagues [6]. Most of the studies have shown that younger patients experience more problems with respect to their partner relationship, sexual function and body image perception [7, 8].

Majority of the patients were from low socioeconomic status and of the patients from low SE status 72% were having poor quality of life. Among the patients from medium socioeconomic status 56% were having average quality of life and 39% were having poor QOL. This has been supported by Chinese study by Fang, et al. [5] and a Korean study. Patients from higher socioeconomic status have better access to health care and higher resources and have better coping up skills and these explain the fact mentioned above.

In our study most of the patients (94%) have no restriction of daily activities and only six percent have mild restriction of daily activities. Most of the patients (98%) experience some form of mild pain and discomfort. As per the studies by Beaulac [4] and colleagues pain and physical function of outcomes of modified radical mastectomy is related to the use of axillary dissection. The daily activities have been mostly related to the premorbid condition of the patient rather than the effect of treatment.

In our study majority of the patients (68%) were not satisfied in their body image perception. Among these patients 91% were more than 51 years of age and 88% had poor quality of life.

Body image is often thought of just relating to physical appearance alone, but studies have related them to functionality and sense of fullness [11]. The impact of disturbed body image perception includes altered sexual function, loss of libido and relationship problems [12].

In this study majority of the patients (60%) had severe psychological impairment and 30% had mild psychological impairment. Among the patients with severe psychological impairment almost all of the patients had poor quality of life. Among the various age groups 75% of the patients were above 51 years of age. The psychological changes associated with aging and menopause also contribute to the psychological state after surgery. Studies have shown that psychological impairment improves with time [3, 9] and since we had a follow up of only 6 months this improvement has not been found in this study.

In this study more than half (54%) of the patients were not satisfied with their sexual life and 36% were partially satisfied in their sexual life. Among the patients not satisfied in sexual life majority of them had poor quality of life. Most of the patients above 51 years were not satisfied in their sexual life. Due to the traditional cultural factors refusal to reply to questions regarding their sexual life was 8% as expected and most of them were above 51 years of age [10]. The disturbed body image perception also contributes to the disturbance in sexual life. The sexual function is also affected by adjuvant treatment and menopausal status with post-menopausal women more affected.

The overall quality of life is poor in 60% of the patients, average in 38% of the patients and good in only 2% of the patients.

## **Conclusion**

From this study we have concluded that the quality of life at the end of six months after modified radical mastectomy in majority of the

patients with early breast cancer is poor. The quality of life is affected in the following domains, namely daily activities, pain, body image perception, sexual life and psychological impairment.

The age of the patient, socioeconomic status of the patient, the comorbid conditions and the need for adjuvant treatment also affects the quality of life.

As most of the studies show no significant difference in the oncological outcomes between BCS and MRM, and there is superior cosmesis and improved quality of life with breast conservation surgery, BCS can be tried in a select group of patients in our setting. However, long term results are equivocal.

As majority of quality of life data are based on western literature there is increasing need of this in our own patients due to the increased incidence and early detection of the disease.

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