

## Quality of life in patients undergoing treatment for breast cancer at a tertiary care hospital.

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**Abstract :**Background: Understanding the effect of breast cancer treatment on a patient's quality of life (QOL) has been a central clinical and research question. Aims And Objectives: To study of QOL of women admitted to Goa Medical College with Breast cancer during their treatment and to make recommendations. Materials And Methods: The study was based on the department of surgery at Goa Medical College on 50 patients. The Details about the quality of life was collected using The European Organization for Research and Treatment of Cancer (EORTC) module QLQ-C30 and QLQ-B23. Open ended questions were also asked. Results: The quality of life in breast cancer patients has been impaired greatly. Pain is the most common complaint amongst them. The overall quality of patients was found to be better in those who did not undergo surgery and was only on neoadjuvant chemotherapy. The patients reported stigma against them in the society. Also they felt that good communication from the doctors' side helped them cope with the situation better. Only 5(10%) patients were aware about breast self-examination. Conclusions: All domains of QOL has been impaired. Various reasons for the worsening QOL in these patients have been documented. There is a need to improve the QOL in these patients.

**Keywords:** Breast Cancer, Breast Self-Examination, Quality of Life.

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### I. Introduction

Breast cancer is the most common cancer among women worldwide, and it accounts for most of the deaths due to cancer amongst women<sup>1</sup>. In India, it has overtaken cervical cancer as the most common cancer amongst women<sup>2</sup>. Goa has a high incidence rate (36.8/1000/year) of breast cancer in comparison to other parts of the country<sup>3</sup>.

Conventionally, survival rates were the only consideration of any oncological therapy. However, the advances in the field of oncology over the past few decades have ensured a significantly higher survival in these patients. Presently, the recognition of patient's well-being and the quality of life has also become an important tool in oncological trials<sup>4</sup>.

Breast cancer is known to affect all the domains of quality of life<sup>5</sup>. Hence, the assessment of QOL in breast cancer patients can serve as an effective tool to assess the outcome and the well-being of the patients. The objectives of this study are as follows:

1. To study of quality of life of women with breast cancer admitted in a tertiary care hospital for treatment.
2. To assess the level of awareness about breast self-examination (BSE) amongst the participants..
3. To make recommendations based on this study to improve the quality of life.

### II. Materials and Methods:

Study setting: The study was based on the department of surgery at Goa Medical College (GMC) which is a tertiary care hospital in the state of Goa, located along the west coast of India.

Sampling: All the patients admitted in the department of Surgery at GMC, admitted during the study period of three months, were approached to be a part of the study. Fifty of the sixty eight patients admitted in the Surgery ward during this period consented to participate in this study.

Ethics: The approval of the Institutional Review Board of Goa Medical College was taken before conducting the study. Informed consent was taken from all the participants and strict confidentiality was maintained.

Methodology: A mixed method approach was adopted for the study involving a qualitative and a quantitative component. A Pre-structured questionnaires were used to collect information on basic demographic characteristics of the participants, information regarding the type of cancer, stage and awareness about breast self-examination.

The European Organization for Research and Treatment of Cancer (EORTC) module QLQ-C30 and QLQ-B23 was used to assess the Quality of Life. These instruments have been validated worldwide for the assessment of quality of life in patients with breast cancer and also standardized for use in India by Tata Memorial hospital, Mumbai<sup>6</sup>. The English and the Hindi versions of the questionnaire were used for the interview. The authors have obtained the necessary permission for the use of this questionnaire for the study.

The EORTC QLQ-C30, version consists of 30 items to assess the physical, emotional, cognitive and social functioning, and also the global health status or QOL for fatigue, pain, nausea and vomiting, dyspnea, insomnia, appetite loss, constipation, diarrhea and financial difficulties<sup>6</sup>. The EORTC QLQ-BR23 is a breast-specific module that consists of 23 questions to

evaluate and assess the body image, sexual functioning, and sexual enjoyment, future perspective, systemic therapy side effects, breast symptoms, arm symptoms and upset by hair loss<sup>9</sup>.

Exclusion Criteria: 1. Stage 4 patients were excluded as they were in a critical state.  
2. Patients who did not give consent for the study.

In depth interviews were conducted and open ended questions were asked, as part of the qualitative component. A guide for the in-depth interview was prepared and followed. Data was coded and analyzed.

Data analysis: The data was analyzed using SPSS software, as per the EORTC guidelines.

### III. Results:

The study was conducted in Goa Medical College. All 68 patients admitted to Goa Medical College in the department of surgery, for Modified Radical Mastectomy / Chemotherapy for breast cancer were approached for the study. Out of these, 50 gave consent for the same. The most common reason for refusal of consent was that they were not comfortable. The socio demographic details of the study participants is provided in table 1.

**Table 1:** Socio-demographic details of the study participants

Age in years	No. of participants	Percentage (%)
30-40	3	6
40-50	20	40
50-60	20	40
60-70	7	14
<b>Marital Status</b>		
Married	44	88
Unmarried	1	2
Widowed	3	6
Divorced	2	4
<b>Education level</b>		
Uneducated	5	10
Primary	6	12
Secondary	30	60
High school	5	10
Graduate	2	4
Post-graduate	2	4

A total of 45(90%) patients were diagnosed with Infiltrating Ductal Carcinoma, 3(6%) patients with malignant phylloides tumor and rest 2(4%) were diagnosed with mucinous variant. Fourteen (28%) patients were in stage 1 of the cancer, 29(58%) in stage 2, and 7(14%) in stage 3. It was found that 47(94%) patients were fully satisfied with the treatment facilities.

**Table 2:** Mean scores of symptoms as detected on the EORTC scale

PARAMETER	Mean(MRM) n=20	SD(MRM)	Mean(BCT) n=30	SD(BCT)	p value
Fatigue	35.47	22.22	30.89	12.44	0.3092
Nausea/Vomiting	9.35	35.86	27.72	12.31	0.0048
Pain	52.57	20.45	35.79	31.57	0.0352
Dyspnoea	6.66	20.33	8.44	21.33	0.7581
Insomnia	34.44	30.93	35.67	32.11	0.8879
Loss of Appetite	22.35	37.5	30	35.67	0.4444
Constipation	5.65	31.26	16.67	28.07	0.1728
Financial difficulties	23.33	10.51	6.67	7.94	0.0012
Diarrhoea	0	0	0	0	
Worry About Hair Loss	13.59	20.04	31.11	17.5	0.001
Worry About Body Image	40.79	20.5	32.77	33.68	0.3331
Arms & Shoulder Symptoms	51.69	9.07	20.57	23.33	>0.0001
Breast Symptoms	13.24	29.33	20.71	21.94	0.2722

The quality of life was evaluated using the EORTC scale as shown. The scores for those admitted following Modified Radical Mastectomy (MRM) and Breast Chemotherapy (BCT) are reported separately.

MRM= patients having undergone Modified radical mastectomy

BCT= patients who have only received chemotherapy

**N.B:-** The greater the mean score, the greater is the impact.

**Table 3** Mean scores of functioning parameters and overall QOL.

Parameter	Mean (MRM) n=20	SD(MRM)	Mean(BCT) n=30	SD(BCT)	p value
QOL	59.33	16.66	62.35	22.22	0.5939
<b>Functioning</b>					
Physical Function	69.22	13.97	80.93	21.45	0.0295
Role Function	54.54	28.95	58.46	27.5	0.9297
Emotional Function	52.93	32.65	52.41	31.45	0.9508
Cognitive function	92.88	12.94	93.88	11.95	0.8847
Social Function	49.43	30.16	52.43	29.67	0.7175

It was also seen that better quality of life was seen in early stages of the disease. Average QOL score for stage 1 was 67.74, for stage 2, it was 61.65 and for stage 3 it was 57.77. Higher scores would imply better QOL.

It was observed that 45(90%) of the patients were not aware about breast self-examination technique.

Qualitative component:

Open ended questions to assess the satisfaction levels of the patients were asked. Ninety four percent (47) patients were completely satisfied with the overall management. Some of the most common suggestions made by the participants, which in their opinion would improve the quality of their life were:

1. To provide transport facilities on the chemotherapy days
2. To give more information about the risk of breast cancer amongst their daughters.
3. To provide suggestions as to how to deal with the side effects of the regimen.

While probing for how the condition was first detected, 4 (8%) of the patients reported to have found it themselves during breast self-examination. Three of them were diagnosed as stage 1 breast cancer. In others (46), it was diagnosed when they went to the doctor for lump, uneasiness, discomfort or pain.

Majority of the participants reported that they were afraid of not recovering fully, the fear of recurrence, worry about her daughter getting the disease and the fact that no-one will be there to look after her family when she is not there worried them the most.

When asked as to how her attitude towards those living in your locality has changed since the beginning of the treatment, most of the patients said that they don't feel like going out anymore. They also felt that people in the society would make fun of their looks if they go out.

The patients felt that good communication from the doctors can help them cope up with the symptoms much better.

**Few quotes in the patients' own words:**

"I was very scared after being diagnosed with cancer. But I didn't know the effects of the treatment would be no less scary".  
-Thirty seven year old lady undergoing chemotherapy for breast cancer stage 2.

"What worries me most is how my children will cope up in my absence in case I don't recover. Are my daughters very much prone to the disease now?"  
-Forty four old lady undergoing chemotherapy for breast cancer stage 1.

"Why should I go out?? To be laughed at by the kids in my neighborhood!!"  
-Thirty two old lady having undergone Modified radical mastectomy for breast cancer stage 2

"Am I going to remain this way all my life?"  
- Fifty two year old lady undergoing chemotherapy for breast cancer stage 2

"I want to spread the word about breast cancer if I recover. We should have sessions about breast self-examination in the community on a regular basis"  
- Fifty four year old lady undergoing chemotherapy for breast cancer stage 3

"Good communication and sensitive attitude of the doctors here has helped me cope up better."  
- Forty Five year old lady undergoing chemotherapy for breast cancer stage 3

**IV. Discussion:**

The study was based on the department of surgery at Goa Medical College. The European Organization for Research and Treatment of Cancer (EORTC) module QLQ-C30 and QLQ-B23 was used to assess the Quality of Life. These instruments have been validated worldwide for the assessment of quality of life in patients with breast cancer and also standardized for use in India by Tata Memorial hospital, Mumbai<sup>6</sup>.

In this study, 40(80%) participants belonged to the age group of 40-60 years. Breast cancer is mainly seen in middle aged and elderly females<sup>7</sup>. The main type of cancer in the participants was infiltrating ductal carcinoma (90%) which is reported to be the most common variant of breast cancer worldwide<sup>7</sup>

A majority of participants (90%) (45) were not aware of breast self-examination procedure as a method of detecting breast cancer early. This is lower than that obtained in the other studies<sup>8-10</sup>. The educated (high school, Graduation or and post-graduation were more likely to be aware of breast self-examination. This is an expected finding and has been

reported in studies<sup>8-10</sup>. BSE has been identified as tool for screening and early detection. The quality of life is affected across all domains such as physical, psychological, emotional, and social. Even though QOL is worse amongst post-operative patients in comparison to those undergoing chemotherapy alone, the difference is not statistically significant. The impact seems to be interconnected, wherein the impairment of any one of the component affects.

Limitations on physical functioning, along with the fear of the future may lead to depression amongst these patients<sup>11</sup>. Furthermore, following impairment of psychological status, along with the apprehension about body image following surgery and/or chemotherapy may cause the patients to become unsocial and isolate herself. The participants felt that good communication from the doctors' end, and their ability to empathize helps them cope up with their situation much better.

In comparison to the other study in India by Parmar et al, the QOL is affected across all domains<sup>6</sup>. However, the intensity of the symptoms and impact on the QOL is much less. This can be attributed to the fact that the sample size in our study was much less. Also, the above mentioned study was done in Tata Memorial Hospital. Usually, the more severe and complicated cases are referred there, hence the QOL tends to suffer a greater impact amongst those patients.

## V. Conclusions and Recommendations:

The quality of life in breast cancer patients undergoing treatment is adversely affected across all domains and there is a need to improve the same. The major problems during the treatment course include fatigue and pain, as well as psychological burdens related to fear of breast cancer recurrence and anxiety. The earlier the disease is detected, the better is likely to be the Quality of life during and after the treatment.

Awareness about breast self-examination is poor amongst the patients.

We recommend that good communication and empathy should be the hallmark of medical team treating people with breast cancer. Counseling services and information would be useful. The Government has initiated the national programme for prevention of Cancer, Diabetes, CVD and Stroke (NPCDCS) under the National Health Mission in India and is attempting to raise awareness at the primary health care level. There is a need to train the outreach workers in being able to provide counseling and care during the treatment phase and follow up period. Much more awareness about Breast self-examination needs to be created to help people detect breast cancer early and have better outcomes and quality of life.

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