

QUALITY OF LIFE ASSESSMENT IN WOMEN WITH BREAST CANCER RECEIVING
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ABSTRACT

Background: With increasing prevalence of breast cancer and various treatments available, health-related quality of life with and without palliative care needs to be evaluated. The purpose of the study was to compare the quality of life in women with breast cancer receiving palliative care and not receiving palliative care. **Methods:** The cross sectional study was carried out on breast cancer patients from the cancer hospitals across Mumbai and Pune cities, India. Total 50 females aged 40-70 years were surveyed, which included subjects receiving palliative care (Group A=25) and subjects who did not receive the palliative care (Group B=25). The purpose of the study was explained and written consent was taken. Participants were asked to fill the EORTC C-30 and BR-23 questionnaire and data obtained was analysed. **Results:** The mean age of Group A and Group B was 53.72 and 55.96 years respectively. Almost 92% of Group A scored higher on "Functional status" as compared to 24% of Group B. Also 68% patients of Group A demonstrated higher "Quality of life" as compared to 16% of Group B; whereas, almost 92% of Group A indicated reduced symptoms on "Symptom scale" as compared to 32% of patients of Group B. **Conclusion:** The patients receiving palliative care demonstrated better functional status and quality of life with fewer symptoms as compared to the patients who are not receiving palliative care.

KEYWORDS: Breast cancer, Palliative care, Non-palliative care, EORTC C-30 & BR-23 questionnaire.**INTRODUCTION**

Cancer is the term used to describe a wide variety of malignant diseases. Cancer is second only to coronary artery disease as the most common cause of death.^[1] Globally, the incidence of breast cancer represents the leading cause of cancer related death in women. Both genetic and hormonal factors play an important role in breast cancer. Prolonged oestrogen exposure associated with early menarche, late menopause is associated with increased risk. Other risk factors may include obesity, alcohol intake, null parity and late first pregnancy.

There were 14.1 million new cancer cases, 8.2 million cancer deaths and 32.6 million people living with cancer (within 5 years of diagnosis) in 2012 worldwide.^[2] Breast cancer is the leading cause of cancer related mortality among women worldwide; it constitutes 23% of the total new cancer cases and 14% of the cancer deaths.^[3] Breast cancer is costly, both in human and economic terms.

The two major changes in management of patients with cancer have occurred over the past decade. The first is recognition that the patient's well-being is important to cancer treatment. Another is the use of QOL and

psychosocial questionnaires to assess their well-being. Breast cancer patients experience physical symptoms and psychosocial distress that adversely affect their quality of life (QOL). For the past quarter century, psychosocial and emotional concerns have been addressed in intervention research of women with breast cancer. QOL generally consists of a number of domains including physical functioning, psychological well-being (such as levels of anxiety and depression) and social support.

Palliative care is specialized medical care for people with serious illnesses. It focuses on providing patients with relief from the symptoms and stress due to the disease. The goal is to improve quality of life for both the patient and the family. Therefore the aim of the study was to compare the quality of life in women suffering from breast cancer receiving palliative care and not receiving palliative care.

MATERIALS AND METHOD**Type of study:** cross sectional survey.**Participants:** Total 50 females aged 40-70 years, diagnosed with breast cancer were surveyed.**Procedure:** The study was approved by institutional ethical committee, Department of Physiotherapy, Tilak

Maharashtra Vidyapeeth, Pune. The cross sectional survey was carried out on breast cancer patients from the cancer hospitals across Mumbai and Pune cities, India. The patients surveyed were categorised into subjects receiving palliative care (Group A=25) and subjects who did not receive the palliative care (Group B=25) using convenient sampling method. The patients of Group A were receiving medicines, physiotherapy treatment such as stretching and strengthening exercises, use of heat and cold, yoga therapy, psychosocial counselling, behavioural treatments such as relaxation, biofeedback and meditation etc. The patients of Group B were receiving medicines only.

Participants were explained about EORTC C-30 and EORTC QLQ BR-23 questionnaire. The EORTC C-30 questionnaire consists of evaluating the patients under three categories viz., Functional status, Quality of life and Symptom scale. Whereas the EORTC BR-23

questionnaire consists of evaluating the patients under two categories viz., Global health status/ Functional status and Symptom scale. The total score of for each category of the questionnaire is 100 and it was divided into ranges of 0-20, 21-40, 41-60, 61-80, 81-100.

The respondents were made clear that the information gathered would remain confidential and would be used only for research purpose. Aim and objectives of the study were clearly stated in a questionnaire in order to obtain the consent of respondents. Participants were asked to fill the questionnaires and data was collected for interpretation and evaluation.

RESULTS

Amongst 50 women suffering from breast cancer surveyed, 34% (17) women were aged between 40-50 years; 36% (18) aged between 50-60 years and 30% (15) women were aged between 60-70 years.

Table 1: Scoring of EORTC C-30 questionnaire.

Score on EORTC C-30	Functional status		Quality of life		Symptom scale	
	Palliative (Group A)	Non palliative (Group B)	Palliative (Group A)	Non palliative (Group B)	Palliative (Group A)	Non palliative (Group B)
0-20	0	0	0	1	23	8
21-40	0	4	1	6	2	5
41-60	1	10	1	9	0	8
61-80	1	5	6	5	0	4
81-100	23	6	17	4	0	0

Table 1 shows the scoring of EORTC C-30 questionnaire in patients receiving palliative (Group A) and patients not receiving palliative treatment (Group B). Around 92% (23) patients of Group A scored between 81-100 on "Functional status" as compared to Group B where 24% (6) patients were ranging between 81-100. A high score for global health status represents good functional status. The survey showed that 68% (17) patients of Group A

scored between 81-100 on "Quality of life" as compared to Group B where 16% (4) patients was ranging between 81-100. A high score for quality of life represents better quality of life. As shown in Fig. 1, 92% (23) patients of Group A scored between 0-20 on "Symptom scale" as compared to Group B where 32% (8) patients was ranging between 0-20. A low score for symptom scale represents low level of symptomatology/problems.

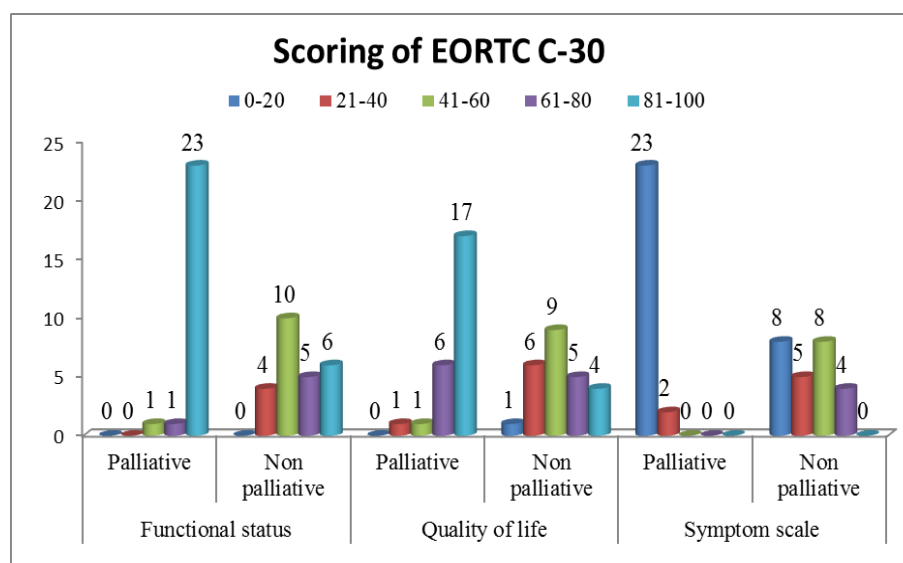


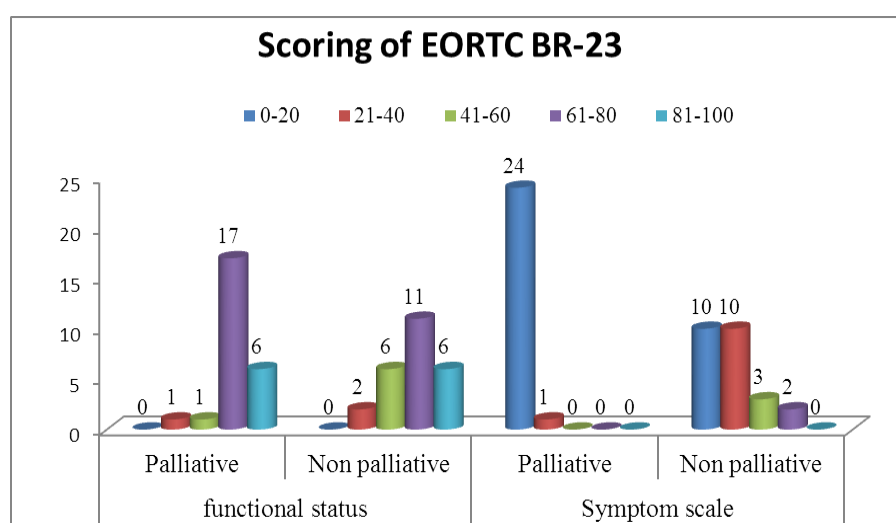
Figure 1: Scoring of EORTC C-30 questionnaire.

Table 2: Scoring of EORTC BR-23 questionnaire.

Score on EORTC BR-23	Functional status		Symptom scale	
	Palliative (Group A)	Non palliative (Group B)	Palliative (Group A)	Non palliative (Group B)
0-20	0	0	24	10
21-40	1	2	1	10
41-60	1	6	0	3
61-80	17	11	0	2
81-100	6	6	0	0

Table 2 shows the scoring of EORTC BR-23 questionnaire in patients receiving palliative and not receiving palliative treatment. Almost 92%(23) patients of Group A scored between 61-100 on “Functional status” as compared to Group B where 68% (17) patients were ranging between 61-100. A high score for global

health status represents good functional status. As shown in Figure 2, 96% (24) patients receiving palliative care scored between 0-20 on “Symptom scale” as compared to Group B where 40% (10) patients was ranging between 0-20. A low score for symptom scale represents low level of symptomatology/problems.

**Figure 2: scoring of EORTC BR-23 questionnaire.**

DISCUSSION

The scoring of EORTC C-30 questionnaire showed that patients receiving palliative care scored higher on “Functional status” as compared to patients who were not receiving palliative care. Also patients receiving palliative care demonstrated higher “Quality of life” and indicated reduced symptoms on “Symptom scale” as compared to patients not receiving palliative care.

The scoring of EORTC BR-23 questionnaire also showed that patients receiving palliative care had better “Functional status” and demonstrated reduced symptoms as seen on “Symptom scale” as compared to 40% patients from non-palliative group.

Many women who are newly diagnosed with breast cancer might feel sad, anxious, shocked, and scared. The clinical features may include loss of muscle mass, pain, nausea, vomiting, fatigue, fever, malaise. The patient undergoes various treatments such as surgery, radiation therapy, chemotherapy, hormone therapy, immune therapy and targeted therapy. Chopra I, Kamal KM^[4] (2012) in their study stated that there was a significant

impact of breast cancer on QOL in long-term breast cancer survivors. Groenvold M (2010)^[5], while assessing the impact of breast cancer and its treatment on the patients' quality of life, concluded that patients undergoing chemotherapy may experience effects on a wide spectrum of Health Related Quality of Life issues.

The goal of palliative care is to improve quality of life for both the patient and the family. It also helps to gain the strength to carry out daily activities.^[6] Palliative care focuses on symptoms such as pain, shortness of breath, fatigue, constipation, nausea, loss of appetite, difficulty sleeping and depression. It improves ability to tolerate medical treatments and helps to have more control over self-care by improving one's understanding of the choice for treatment.

There are many treatments for pain but it depends on the cause and amount of pain. Psychological treatments could help patients come to terms with their emotions and treatment illnesses they may develop, including depression, panic disorders, and anxiety disorders.^[7] Good functional status and quality of life in palliative care group may be due to the physiotherapy treatment,

relief of physical and emotional suffering and rehabilitation which promotes independence and a return to normal activities that ultimately improve quality of life. Physiotherapeutic techniques such as soft tissue and joint mobilizations, deep breathing exercises, stretching and strengthening exercises, Ice packs, heating pads, biofeedback, massage, relaxation techniques, alternative and cognitive therapies can all help in improving functional status and reducing symptomatology. Psychosocial counselling also would have helped in improving quality of life of breast cancer patients receiving palliative care.

Park KU^[8] (2008) during assessment of change of quality of life in terminally ill patients under cancer pain in a Korean population found that out of 159 patients, 98 had improved cancer pain severity, 17 patients had deteriorated cancer pain, and 29 patients had unchanged pain. Also statistically significant differences between palliative and nonpalliative group over time were observed for the scales of global quality of life, fatigue, pain, nausea and sleep disturbance.

Sheila Perry *et al*^[9] (2007) while assessing the benefits, challenges and barriers of QOL measurement for female breast cancer patients concluded that the Health-related quality of life has increasingly been an important factor to consider in the holistic treatment of breast cancer patients, physicians will be better able to make treatment decisions.

As the disease progresses, it is important to study one's health-related quality of life (QOL) affected in patients receiving various treatments for breast cancer. QOL instruments can be used in clinical trials to predict survival, response to treatment, and to screen for psychological morbidity.

CONCLUSION

The patients receiving palliative care demonstrated better functional status and quality of life with fewer symptoms as compared to the patients who are not receiving palliative care.

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