

QUALITY OF LIFE ASSESSMENT IN CARCINOMA BREAST PATIENTS AFTER ADJUVANT CHEMOTHERAPY

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ABSTRACT

Background: Cancer is the second most common cause of death worldwide and accounts for 9% of all deaths in India. In India, breast cancer is the most prevalent cancer among women. Breast cancer is the most diagnosed cancer with a high mortality rate and the second leading cause of death among women. Studies have shown that quality of life is low among breast cancer patients post-chemotherapy. **Material and Methods:** This study is to assess and improve the quality of among women with breast cancer. All the symptoms will be assessed by our own questionnaire, EQ-5D-5L Questionnaire, The Karnofsky Performance Status, and The Edmonton Symptom Assessment Scale. **Result:** A total of 106 samples were taken for the purpose of this study and were assessed and analysed and it was observed that there was a moderate reduction in the quality-of-life post-chemotherapy among breast cancer patients. **Conclusions:** To achieve the highest possible quality of life despite disease, it is crucial to regularly assess the quality of life of patients in order to rapidly assess the problems of each sphere of life, thereby enabling the identification of high-risk patients and permitting early intervention based on the identified needs or deficits.

INTRODUCTION

Cancer is the second leading cause of mortality worldwide. It is one of the most significant health issues facing humanity, and the burden has been quickly increasing each year. Globally, noncommunicable diseases account for 71% of all deaths, while in India, it is estimated that noncommunicable diseases account for 63% of all deaths, with cancer being one of the top causes (9%) Breast cancer is the most commonly diagnosed cancer with a high mortality rate and the second leading cause of death among women. Every four minutes, a woman in India is diagnosed with breast cancer, and every thirteen minutes, she dies from it, making it the most prevalent cancer among women. It is now a global issue, yet it is still identified in its advanced stages due to negligence of women with regards to the self-examination and clinical evaluation of breast.

Approximately 5% of the breast cancer population consists of patients younger than 40 years of age. Cancer is the main cause of mortality in

postmenopausal women, accounting for 23% of all cancer-related fatalities. Generally, these patients are believed to have a more aggressive disease.

After surgery, the physician may recommend chemotherapy to eliminate any remaining cancer cells and lower the risk of cancer recurrence. This treatment is known as adjuvant chemotherapy. Supporting the physical, psychological, and emotional needs of women diagnosed with and treated for breast cancer is a recognised objective of health care providers and a crucial component of high quality care and survivorship; yet, there is currently a shortage in this area.^[2]

Chemotherapy patients with breast cancer may have many side effects and symptoms that diminish their quality of life. It was observed that adjuvant hormonal therapy had a comparable detrimental impact on quality of life, although being generally associated with improved survival.

Psychological discomfort, such as anxiety and depression, was found to be prevalent among breast cancer patients years after diagnosis and therapy. Supportive care which includes clinical treatments to control emesis, or therapies such as counselling,

offering social support, and exercise could increase life satisfaction.

Pain, fatigue, arm morbidity, and post menopausal symptoms were among the most frequently mentioned symptoms by breast cancer patients.

Pain regularly disrupted sleep, which was characterised by a reduction in total sleep time. Chemotherapy and radiation therapy as sleep disturbance predictors in breast cancer patients were addressed.

The quality of life assessments serve as the basis for measuring cancer patients' condition. In addition to adverse drug reactions and disease symptoms, this enables the healthcare provider to obtain important emotional and spiritual information about the patient. This evaluation has a positive effect on the health of patients, their caregivers, care providers, and cancer patients receiving palliative care.^[2,4]

It has been observed that assessing the quality of life of cancer patients can contribute to improved treatment, can be more prognostic than medical parameters, and is essential for determining the efficacy of the given treatment.

Numerous international studies have proven that after chemotherapy, the quality of life of cancer patients is poor. Therefore, the goal of the study is to assess and improve the quality of life of breast cancer survivors who have undergone chemotherapy.

MATERIALS AND METHODS

Area of study: The study was conducted in a tertiary care teaching hospital in central Tamilnadu.

Study population-Breast cancer patients from the hospital over the past 5 years have been included in this study (2017-2022). The study duration was between August and October 2022

Type of study: Cross sectional and analytical study

Sample size: A total of 106 patients with Breast cancer post chemotherapy were included in this study

Duration of study: August 2022 to October 2022

Inclusion Criteria: Patients who were willing to participate were included in this study

Exclusion Criteria: Those approached and are not willing to participate

Procurement of permission: The purpose of the study was explained to the patients with breast cancer (post chemotherapy) and written or oral consent was obtained before enrolling in the study. Institutional Ethics Clearance was obtained duly before starting the study. A total of 106 patients were analyzed retrospectively between. The patients will be asked to come to the hospital and the questions will be asked by the investigator in front of qualified personnel. If the patients were not able to come to the hospital, then the questions were asked through a phone call after getting their oral consent

Patients demographic data was collected and followed by our pre-formed symptom checklist (post

chemotherapy). The quality of life of patients were assessed by EQ-5D-5L questionnaire, The Karnofsky Performance Status (KPS), The Edmonton Symptom Assessment Scale (ESAS).

Visual Analogue Scale(VAS) was not assessed in the patients as some of the patients could not come to the hospital during the study period. Hence, Visual Analogue Scale was not used in this study

Demographic data

A structured proforma with demographic details like name, age, place, occupation, nutrition, relaxing activities, physical activities, mental activities was given and data were collected

Symptoms checklist

The patients were also asked about their symptoms with the pre-formed questionnaire formed by us with questions like fatigue, pain, changes in skin condition, weight loss, loss of appetite, nausea, vomiting, constipation, diarrhoea, abdominal pains, headaches, dizziness, loss of hair, depression, anxiety, difficulty in sleeping, multi-tasking, gait, fear for future, number of chemotherapy cycles and period of illness (from the diagnosis of breast cancer until now)

EQ-5D-5L

The EQ-5D-5L Quality of Life Assessment questionnaire includes questions about mobility, self-care, daily activity, pain and discomfort, anxiety and depression. The questions will be asked to the patient in a systematic manner to know whether there is no/slight/moderate/severe difficulty in the following

The Karnofsky Performance Scale (KPS)

The Karnofsky Performance Scale (KPS) is used as a tool of assessment for functional impairment. The needs of patients can be understood and can be improved with this scale. It also helps in determining the ability of the patient to carry out daily activities and to assess patient prognosis. A scale of 0 to 100 is used for assessment, 0 meaning dead 100 meaning normal/ fully active. Higher the value, higher the quality of life. The obtained results with the help of this scale correlates with the time of survival in cancer patients. It is assumed that higher scale values correspond to better fitness and a higher quality of life

Edmonton Symptom Assessment System(ESAS)

The Edmonton Symptom Assessment System (ESAS) is a simple, important and reliable tool designed to assess the quality of life of cancer patients. It includes pain, tiredness, nausea, drowsiness, well-being, lack of appetite, shortness of breath, anxiety, and well-being. All these symptoms will be scored on a 10-point scale, with 0 being no symptoms and 10 being the highest severity of the symptom.

The data collected will be tabulated and analyzed with descriptive statistics (in terms of mean median and percentage) using SPSS version 21.

RESULTS

Demographic data

Age(n=106)

Table 1: Correlation between age and occurrence of breast cancer(n=106)

AGE	Frequency	Percentage	N/%
30-45	27	25	27/25%
46-60	58	55	58/55%
61-75	21	20	21/20%

The above table shows that among the study group consists of 106 female patients(n=106). About 46.8% of health The mean age of the respondents was 53.36. Standard Deviation-8.91. The youngest person was 34 years old, and the oldest was 71 years old. Coefficient of variation(CV-10.02). About 58% of the patients belonged to 46 to 60 years of age.

Place(n=106)

Table 2: This table shows the frequency of places of cancer occurrence

Place	Frequency	Percentage	N/%
Rural	77	73	77/73%
Urban	29	27	29/27%

The above table(n=53) shows that about 73% of the patients belonged to Rural area and 27% to the Urban area. Most of the people were from village side due to the location the study area.

Education(n=106)

Table 3: It shows the educational status of breast cancer patients

Education	Frequency	Percentage	N/%
Primary	11	10	11/10%
Secondary	33	31	33/31%
Undergraduate	20	19	20/19%
Uneducated	42	40	42/40%

The above table(n=106) shows that about 10% of the study population belongs to primary education,31% of the patients belonged to secondary education,19% of the patients were undergraduates and 40% of people were uneducated. most of the people were uneducated because they all belonged to nearby villages.

Occupation(n=106)

Table 4: It shows the occupation of breast cancer patients

Occupation	Frequency	Percentage	N/%
Homemaker	72	68	72/70%
Daily Worker	19	18	19/20%
Farmer	11	10	11/10%
Banking	4	4	4/4%

The above table shows that about 68% of the patients were homemakers,18% of the individual were Daily worker,10% were a farmer and 4% from banking. Majority of the patients who were homemaker did not have the knowledge of treatment modalities of the disease.

Relaxing activities(n=106)

Table 5: It shows the relaxing activities done by the breast cancer patients

RELAXING ACTIVITIES	Frequency	Percent	N/%
Television	31	29	31/29%
NIL	29	27	29/27%
SLEEPING	18	17	18/17%
GARDENING	11	10	11/10%
READING BOOKS	11	10	11/10%
TAILORING	4	4	4/4%
TALKING WITH FRIENDS	2	2	2/2%

The above table(n=106) shows the relaxing activities done by the patients in their cancer care period.29% of the individuals were watching TV, 27% of the individual were not involved in any activity. 17% of the individual were sleeping ,10% of the individual were indulging themselves in gardening activities10,% of the individuals were reading books,4% were doing tailoring and 2% were talking with friends. Relaxing activities definitely had an impact in the patient's life. Patients who were indulging in any kind of relaxing activity was feeling much better than the patients who were not at all doing any sort of relaxing activities.

Physical activities

Table 6: It shows the physical activities done by the breast cancer patients

Physical activities	Frequency	Percent	N/%
WALKING	69	65	34/64%
NIL	19	18	19/18%
COOKING and HOUSEHOLD	16	15	16/15%
COW MAINTENANCE	2	2	2/2%

The above table (n=106) shows the physical activities which were done by the patients. 65% of the patients were walking. 18% of the individuals were not involved in any sort of physical activities and 15% of the individuals were involved in cooking and household work. 2% were involved in cow maintenance. Patients who were walking felt much better in their cancer care period. walking was also associated to some exercise to their shoulders and arm which prevented them from lymphedema and shoulder dysfunction. Some Patients who were not at all doing any sorts of physical activities suffered from lymphedema and shoulder pain.

Mental activities

Table 7: It shows the mental activities done by breast cancer patients

Mental activities	Frequency	Percentage	N/%
NIL	68	64	68/64%
PRAYING	25	24	25/24%
LISTENING TO MUSIC	7	6	7/6%
YOGA	6	6	6/6%

The above table shows the mental activities (n=106) done by the patients. 64% of the individuals not involving themselves in any sort of mental activities. 24% of the patients were praying to their religious belief. 6% of the patients were listening to music. 6% of the patients were doing Yoga. Mental activities made a big difference in patients, individuals who were praying felt a little better in their mental health. Patients who were listening to music also felt better in terms of mental health. patients who were not at all involving themselves in any sort of mental activity suffered from mental health.

SYMPTOMS CHECKLIST

Table 8: Symptom Checklist

Symptoms	Present(N/%)	Absent(N/%)	p-value*
Fatigue	86/81%	20/19%	.000
Pain	59/56%	47/44%	.336
Change in skin condition	42/40%	64/60%	.216
Weight loss	55/52%	51/48%	.680
Loss of appetite	44/42%	62/58%	.336
Nausea	28/26%	78/74%	.001
Vomiting	18/17%	88/83%	.000
Constipation	12/11%	94/89%	.000
Diarrhoea	23/22%	83/78%	.000
Abdominal pain	37/35%	69/65%	.074
Headache	58/55%	48/45%	.336
Dizziness	58/55%	48/45%	.336
Loss of Hair	94/89%	12/11%	.000
Depression	65/61%	41/39%	.074
Anxiety	73/69%	33/31%	.004
Difficulty in sleeping	60/57%	46/43%	.336
Multitasking	56/53%	50/47%	.891
Change in gait	6/6%	100/94%	.000
Fear for Future	68/64%	38/36%	.020

p value* is less than or equal to 0.05

The above table shows the symptom checklist (n=106) results. while assessing the patients were asked about the symptom and whether the symptom was present or absent. Nearly 50% of the patients had no symptoms and the other half had severe symptoms. 81% of the individuals suffered from fatigue to an extent from mild to severe. 56% of the experienced pain. Change in skin condition was also present in 40% of the individuals but the 60% of the individual didn't experience much of a change in skin condition. weight loss was observed in over 52% of the individuals. some individuals experienced severe weight loss in their period of illness. 42% of the individuals experienced a reduced appetite

whereas 57% of the individuals didn't have much of the symptom. Nausea was present 26% of the individuals and 74% of the individuals didn't experience nausea. And vomiting was present in 17% of the individuals, 83% of the individuals did not experience vomiting. Constipation was not present in many patients, only 11% of the individual experienced it. Diarrhoea was present in some individuals about 22% its extent was from mild to severe. In some cases, diarrhoea was associated with severe weight loss. Abdominal pain was present in 35% of the individuals and absent in 65% of the cases. Headache and dizziness was present in 55% of the cases. Loss of hair was present in about 89% of

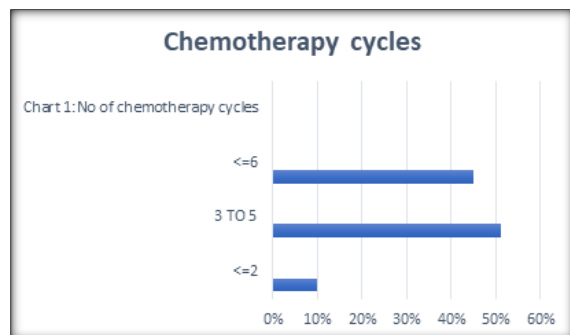
the cases. These patients underwent severe mental trauma during this period. Depression was present in 61% of the individuals. Anxiety was present in 69% of the cases. More than half of the patients had difficulty in sleeping, about 57%. And multitasking was able to do by 53% of the individuals. A few The differences were statistically significant $p=0.05^*$

patients experienced a change in gait, they were bedridden in about 6% of the cases. And fear for the future was present in almost 64% of the cases.

Number of chemotherapy cycles

Table 9: No of chemotherapy cycles

Chemotherapy	Number	Percentage	N/%
<=2	10	9	10/9%
3 TO 5	51	48	51/48%
<=6	45	43	45/43%



The above table and chart shows the number of chemotherapy cycles taken by the patients. It was also noted that patients who didn't complete their chemotherapy cycles experienced very severe symptoms. patients who partially completed the cycle experienced moderate symptoms and patients who completed their cycles experienced slight symptoms.

EQ-5D-5L QUESTIONNAIRE

Table 10: EQ-5D-5L profile of patients by different disease stages(mobility)

Mobility(n=106)					
MOBILITY		Frequency		Percent	N/%
3-12 Months	Valid	MODERATE	8	25	8/25%
		NO	12	38	12/38%
		SLIGHT	10	31	10/31%
		SEVERE	2	6	2/6%
1-2 years	Valid	MODERATE	2	22	2/22%
		NO	2	22	2/22%
		SLIGHT	5	56	5/56%
		SEVERE	23	35	23/35%
3-6 years	Valid	MODERATE	13	20	13/20%
		NO	4	6	4/6%
		SLIGHT	25	39	25/39%
		SEVERE	4	6	4/6%

The above table shows the EQ-5D-5L profile of patients by different disease stages.it shows the mobility of patients varying from duration of illness from 3-12 months, 1-2 years, 3-6 years.

Self-Care (n=106)						
SELF-CARE		Frequency		Percent		N/%
3-12 Months	Valid	MODERATE	12	38	12/38%	
		NO	10	31	10/31%	
		SLIGHT	10	31	10/31%	
		SEVERE	2	23	2/23%	
1-2 years	Valid	MODERATE	4	44	4/44%	
		NO	3	33	3/33%	
		SLIGHT	5	8	5/8%	
		SEVERE	32	49	32/49%	
3-6 years	Valid	MODERATE	5	8	5/8%	
		NO	28	43	28/43%	
		SLIGHT	28	43	28/43%	
		SEVERE	4	6	4/6%	

Table11: EQ-5D-5L profile of patients by different disease stages(self-care)

Daily activity (n=106)						
Daily Activity		Frequency		Percent		N/%
3-12 Months	Valid	MODERATE	12	38		12/38%
		NO	10	31		10/31%
		SLIGHT	10	31		10/31%
		SEVERE	2	22		2/22%
1-2 years	Valid	MODERATE	4	44		4/44%
		NO	3	33		3/33%
		SLIGHT	5	8		5/8%
		SEVERE	32	49		32/49%
3-6 years	Valid	MODERATE	5	8		5/8%
		NO	28	43		28/43%
		SLIGHT	28	43		28/43%
		SEVERE	4	6		4/6%

		NO	32	49		32/49%
		SLIGHT	28	43		28/43%

The above table shows the EQ-5D-5L profile of patients by different disease stages.it shows the daily activity of patients varying from duration of illness from3-12 monhs,1-2 years,3-6 years.

Table 13: EQ-5D-5L profile of patients by different disease stages (pain and discomfort)

Pain and Discomfort(n=106)						
PAIN AND DISCOMFORT		Frequency		Percent		N/%
3-12 Months	Valid	MODERATE	10	31	10/31%	
		NO	16	50	16/50%	
		SLIGHT	6	19	6/19%	
1-2 years	Valid	MODERATE	3	33	3/33%	
		NO	6	67	6/67%	
3-6 years	Valid	MODERATE	19	29	19/29%	
		NO	23	36	23/36%	
		SEVERE	4	6	4/6%	
		SLIGHT	19	29	19/29%	

The above table shows the EQ-5D-5L profile of patients by different disease stages.it shows the pain and discomfort of patients varying from duration of illness from3-12 monhs,1-2 years,3-6 years.

KPS Scale

KPS SCORE	3-12 months	1-2yrs	3-6yrs
100	1	0	1
90	9	2	11
80	10	4	24
70	9	1	23
60	3	2	6
50	0	0	0
40	0	0	0
30	0	0	0
20	0	0	0
10	0	0	0
0	0	0	0

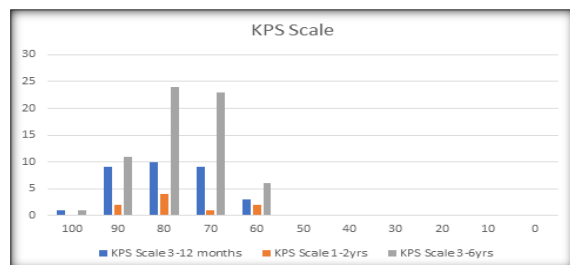


Figure 2: Graph shows the varying score of kps with the duration of illness

The above table and graph show the kps score with a varying periods of illness of patients. By using the KPS scale we came to know that there was only a slight decrease in the functional impairment of the patients. It was noted that most of the patients were assessed with scores of 60,70,80 irrespective of the duration of illness which indicates that quality of life among women post-chemotherapy is good according to karnofsky performance status(KPS).

EDMONTON SYMPTOM ASSESSMENT SCALE(ESAS)

Symptom	Severity	Count	Table N %
Pain	High	18	17.0%
	Low	54	50.9%
	Moderate	34	32.1%
Tiredness	High	26	24.5%
	Low	20	18.9%
	Moderate	60	56.6%
Nausea	High	4	3.8%
	Low	84	79.2%
	Moderate	18	17.0%
Drowsiness	High	6	5.7%
	Low	62	58.5%
	Moderate	38	35.8%
Lack of Appetite	High	6	5.7%
	Low	58	54.7%
	Moderate	42	39.6%
Shortness of Breath	High	2	1.9%
	Low	70	66.0%
	Moderate	34	32.1%

Anxiety	High	20	18.9%
	Low	34	32.1%
Depression	Moderate	52	49.1%
	High	8	7.5%
Well-Being	Low	44	41.5%
	Moderate	54	50.9%
	High	10	9.4%
	Low	22	20.8%
	Moderate	74	69.8%

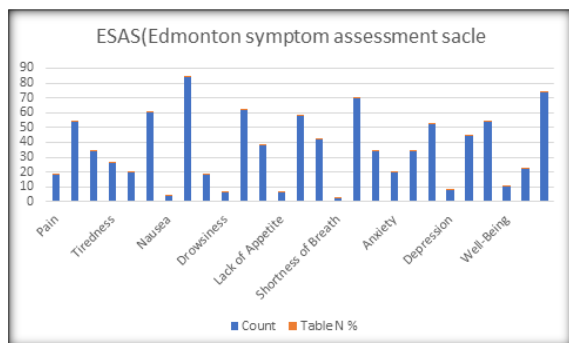


Figure 3

The following table and graph shows the ESAS scale. x-axis shows the symptoms of esass scales and y-axis shows the number%. The scores were pointed from 0-10 with 0 meaning no symptom and 10 meaning highest severity of the symptom.

We took 0-3 as low severity, 3-6 as moderate severity and 6-10 as high severity. After assessing and analysing it was found that most of the patients were observed with moderate severity (the score between 3-6). ESAS reliable tool of us to assess the quality of life of cancer patients. So it was observed that quality of life of patients was good according to this scale.

DISCUSSION

The World Health Organization defines quality of life as a person's view of their position in life, within the context of their value systems and culture, in relation to their objectives, expectations, and interests.^[14-16] According to Siegrist and Jung, the three closely related components of life quality are physical markers, mental factors, and social indicators. The quality of life of a particular individual is always pertaining to topics that are really vital to them.^[17,18] Our aim is to assess the quality of life among breast cancer patients post-chemotherapy treatment. so we took all into consideration and used our own preformed questionnaire which helped us to know about their physical activities, relaxing activities, mental activities and we found out that these activities made an impact on the quality of life. The quality of life of cancer patients occupies an increasing amount of space in the literature and conversations of experts. Additionally, it is becoming the norm. It pertains to a personalised, subjective approach to the patient. It permits the evaluation of the influence of disease and treatment on the patient's functioning. Their relatives' physical, psychological, and social health. The significance of measuring the

Montazieri demonstrated the quality of life for cancer patients by stating the global quality of life. Life expectancy of patients before beginning oncological treatment is an important survival predictor.^[19-21] Similarly, Li et al. demonstrated, based on a sample of approximately 400 cancer patients, that. Overall survival is strongly and independently predicted by health-related quality of life.^[22] Our study population about 53 patients in tertiary care teaching hospital and after assessing our patients with kps,eq-5d-5l questionnaire,our own symptom questions.we got to know that the quality of life of female breast cancer patients is slightly low.

In order to evaluate the quality of life of cancer patients, a population-based, multi-area, cross-sectional study was done. A clinical interview served as the study's methodology. The EQ-5D-5L Quality of Life Questionnaire, the Karnofsky Performance Status, our own symptom checklist, the Edmonton Symptom Assessment(ESAS), were used to measure quality of life. Cancer has a detrimental impact on the quality of life of patients, which is directly tied to the illness process, the treatment administered, and the duration of the condition.^[3]

The EORTC module QLQ-C30 and the BR 23 Questionnaire were used to investigate the QOL concerns. With the exception of sexual function, the general quality of life looks to be favorable. Overall, the QOL of younger breast cancer patients looked to be favorable. The breast conservation group had marginally lower QOL and sexual function than the mastectomy group.^[9] In our study quality of life of patients of younger age group is slightly better. Patients with cancer have numerous symptoms that negatively impact their quality of life. The management of cancer pain is an essential aspect of cancer patient care. The primary concerns are symptom management and the need to employ tactics that will give patients a greater sense of control over their illness and treatment. There will be a substantial relationship between the QOL of cancer patients and their demographic and disease-related characteristics, such as age, education, income, cancer kind and stage, sickness duration, and treatment length.^[10] The demographic data collected by us gave us clear idea about the patients through the occupation, age and duration of illness.

Self-care is proposed as a mediator between the association between symptom management self-efficacy and quality of life in Taiwanese oncology outpatients with breast cancer. The Symptom-Management Self-Efficacy Scale—Breast Cancer (SMSES-Breast Ca) Breast cancer survivors have

been assessed with the Self-Care Scale and the European Organization for Research and Treatment of Cancer Quality of Life Group Questionnaire (EORTC-QLQ-C30). Patient's quality of life is considerably and positively influenced by their self-efficacy beliefs and self-care.^[11] After analysing our study and by the the questionnaire we use qol was moderate from the data collected by us

The study assessed the health-related quality of life (HRQL) of breast cancer patients utilizing the EuroQoL five dimensions questionnaire with five levels (EQ-5D-5L), the Euro QoL visual analogue scale (EQ VAS), and the EORTC QLQ-BR23 tool. Patients receiving breast conservative surgery (BCS) had higher scores than those getting modified radical mastectomy.^[12] All patients from our study went to mastectomy or modified radical mastectomy and was given chemotherapy in varying cycles

According to Smyth EN and Jacob J., individuals with advanced cancer frequently have diminished quality of life. their disease and treatment side effects Health-related quality of life is a multidimensional measure of well-being. idea and is a priority issue according to oncologists.^[23,24] Numerous studies have revealed that cancer has a negative effect on quality of life indicators. diagnosis. Typically, a diagnosis of neoplastic disease induces extreme anxiety, a sense of danger and depression. During our research study, frequent hospitalization and intense drug regimen has a detrimental effect on quality of life of cancer patients was found to be true in our study.

CONCLUSION

1. Cancer has a substantial impact on patients, and their quality of life is dependent on the illness process, the treatment administered, and the disease's duration. The need for repeated hospitalizations, unpleasant emotions, and multiple physical ailments that fluctuate over time significantly diminish the living quality of cancer patients.
2. At every stage of the disease, physical symptoms accompany patients and are linked to increased disability and diminished quality of life. The elements that greatly influence the occurrence of symptoms are dependent on the disease's phase, treatment cycles, and duration.
3. To achieve the highest possible quality of life despite disease, it is crucial to regularly assess the quality of life of patients in order to rapidly assess the problems of each sphere of life, thereby enabling the identification of high-risk patients and permitting early intervention based on the identified needs or deficits. Undiagnosed and untreated illnesses impair the efficacy of cancer treatments, and reduce the quality of life among patients.
4. A total of 106 samples were taken for the purpose of this study and were assessed and analyzed with the help of an own symptom questionnaire, Karnofsky performance status(KPS), EQ-5D-5L Questionnaire, and Edmonton Symptom Assessment Scale(ESAS) and it was observed that there was a moderate reduction in the quality of life post chemotherapy among breast cancer patients.

QUESTIONNAIRE

DEMOGRAPHIC DATA

Name :
 Age :
 Sex :
 Place :
 Marital status :
 Education :
 Source of Income :
 Financial status :
 Nutrition :
 Fluid intake :
 Relaxing activities :
 Physical activities :
 Mental activities :

SYMPTOMS CHECKLIST

The patients were also asked about their symptoms with the pre-formed questionnaire formed by us with questions like fatigue, pain, changes in skin condition, weight loss , loss of appetite, nausea, vomiting, constipation, diarrhoea, abdominal pains,

headaches, dizziness, loss of hair, depression, anxiety, difficulty in sleeping, multi-tasking ,gait ,fear for future, number of chemotherapy cycles and period of illness(from the diagnosis of breast cancer until now)

Symptoms

- Fatigue :
- Pain :
- Change in skin condition :

- Weight loss :
- Loss of appetite :
- Nausea :
- Vomiting :
- Constipation :
- Diarrhoea :
- Abdominal pain :
- Headaches :
- Dizziness :
- Loss of hair :
- Depression :
- Difficulty sleeping :
- Anxiety :
- Difficulty in concentrating :
- Multi-tasking :
- Gait and Dexterity :
- Fear for future :
- No of chemotherapy cycles :
- Period of illness :

(from the diagnosis of breast CA until now)

EQ-5D-5L

The EQ-5D-5L Quality of Life Assessment questionnaire includes questions about mobility, self-care, daily activity, pain and discomfort, anxiety and

depression. The questions will be asked to the patient in a systematic manner to know whether there is no/slight/moderate/severe difficulty in the following

1. Mobility :
2. Self-Care :
3. Daily Activity :
4. Pain and Discomfort :

The Karnofsky Performance Scale (KPS)

The Karnofsky Performance Scale (KPS) is used as a tool of assessment for functional impairment. The needs of patients can be understood and can be improved with this scale. It also helps in determining the ability of the patient to carry out daily activities and to assess patient prognosis. A scale of 0 to 100 is

used for assessment, 0 meaning dead 100 meaning normal/ fully active. Higher the value, higher the quality of life. The obtained results with the help of this scale correlates with the time of survival in cancer patients. It is assumed that higher scale values correspond to better fitness and a higher quality of life

Degree of efficiency	Description
100	Normal condition, no complaints or symptoms
90	State of normal activity, slight complaints and symptoms of the disease
80	Almost active state (requires some effort); slight complaints and symptoms of the disease
70	State of inability to perform work or proper activity, with the ability to self-service
60	Condition requiring periodic care, while preserved the ability to independently fulfill most of your daily needs
50	A condition that requires frequent care and frequent medical interventions
40	State of failure and need for special care
30	State of severe insufficiency, indications for hospitalization
20	Serious illness, absolute necessity of hospitalization and providing supportive care
10	The state of sudden increase in the threat to life
0	Death

Edmonton Symptom Assessment System(ESAS)

The Edmonton Symptom Assessment System (ESAS) is a simple, important and reliable tool designed to assess the quality of life of cancer patients. It includes pain, tiredness, nausea, drowsiness, well-being, lack of appetite, shortness of breath, anxiety, and well-being. All these symptoms will be scored on a 10-point scale, with 0 being no

symptoms and 10 being the highest severity of the symptom.

- Pain
- Tiredness
- Nausea
- Drowsiness
- Lack of appetite
- Shortness of breath

- Anxiety
- Depression
- Well being

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