Quality of Life Assessment in Treated Breast Cancer Patients Before and After Yoga Therapy

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Abstract

Back ground: Globally the incidence of breast cancer is second to that of lung cancer . Breast cancer remains the leading cause of cancer related deaths among women. Important aetiology for breast cancer are hormonal exposure & genetic causes. Breast cancer is managed by surgery, radiotherapy & chemotherapy. The cancer and various treatment modalities produces complications like hair loss, fatigue, skin changes, pain, fatigue and restriction of mobility. Yoga improves the quality of life both health related & psychology related problems.

Aim: The aim of this study was to assess the quality of life before and after yoga therapy in breast cancer patients who had completed active treatment

Materials and Method: 30 patients with breast cancer in the age group between 35 – 50 yrs participated in the study. Patients were selected from oncology department, RGGGH, Chennai. After obtaining the informed consent, Yoga & relaxation exercises were taught to all patients and continued for a period of three months under supervision . Quality of life was assessed by European Organization for Research and Treatment of Cancer (EORTC) Breast Cancer-Specific Quality of Life Questionnaire (QLQ-BR23) before and after yoga.

Result: There was a significant improvement in quality of life following yoga therapy with P value <0.0001 .

Conclusion: Yoga therapy can be recommended as one of the lifestyle modification practices in breast cancer patients.

Keywords: *Breast cancer patients, yoga, Quality of life assessment.*

Introduction

Globally the prevalence of breast cancer is second to that of lung cancer . Breast cancer represents the leading cause of cancer related deaths among women. It accounts for 1 – 3 % of all deaths in woman in developing countries. In worldwide about 12% of women are affected with this disease.

Both genetic & hormonal factors play an important role in breast cancer [1]. About 5 – 10% of breast cancers are hereditary[2] & occur in patients with mutation of BRCA1, BRCA2 or TP53 genes. Risk factors for breast cancer are prolonged oestrogen exposure, early menarche, late menopause and use of Hormone Replacement Therapy (HRT).

Breast cancer is often managed by surgery, radiotherapy & chemotherapy. Cancer and it's therapy cause depression, pain, sleep problems, mood disturbances & anxiety[3]. Psychological symptoms

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interfere with the daily activities of patients including self care[4] .

Radiation also affects the skin and mobility of the patients[5]. These changes affect their normal function, working ability, relations within the family & society.

Danhaur SC [6] et al gave restorative yoga which has active relaxation intervention to breast & ovarian cancer patients & found yoga has benefit to relieve psychological stress, anxiety, negative affects and overall quality of life is improved .

This study aims to evaluate whether yoga therapy improves the quality of life in treated breast cancer patients.

Benefits of Yoga Therapy: Yoga improves the quality and circulation of the blood. It strengthens the endocrine and nervous system. By eradicating insomnia, it lead to good, normal or deep sleep. It reduces backache, headache, fatigue, anxiety. Yoga training eliminates pain in the lower back, pressure of the spinal nerves, improves the appetite and digestion. By improving the production of Endorphin, it makes relaxation of bodyand mind. It relives the stress by supplying more oxygen to the body and prevents stress related headache.

Aim: The aim of this study was to assess the quality of life before and after yoga therapy in breast cancer patients who had completed active treatment.

Inclusion Criteria:

- Female patients with breast carcinoma under stages 1 and 2
- Age group of 35–50 yrs
- Patients who underwent Mastectomy
- Patients who completed Chemotherapy
- Patients who completed Radiotherapy

Exclusion Criteria:

- Male carcinoma breast cancer
- Breast cancer patients on chemotherapy
- Pregnant patients
- Lactating patients
- Inflammatory breast disease patients
- Patients with benign disorders of breast
- Cardiac patients
- Patients suffered from chest malformation
- Chronic pulmonary disease patients
- Other concurrent medical illness (i.e. respiratory, cardiac or renal failure)

Methodology

After obtaining ethical clearance Quality of life was assessed in breast cancer patients by European Organization for Research and Treatment of Cancer Breast Cancer-Specific Quality of Life Questionnaire (EORTCQLQ-BR23) questionnaire method. Yoga & relaxation exercises were taught to the patients. They continued the exercises for a period of three months under my supervision. After three months quality of life was again assessed .

Breast Cancer Module: QLQ-BR23

European Organization for Research and Treatment of Cancer (EORTC) Breast Cancer-Specific Quality of Life Questionnaire (QLQ-BR23) consist of 23 questions. The breast cancer module incorporates five multi-item scales to assess systemic therapy side effects, arm symptoms, breast symptoms, body image and sexual functioning.

Table 1: Recommended Asana for Breast Cancer Patients

S.No.	Yoga Asana	Time Duration
1	Suryanamaskara	5-8min
2	Ardha halasana	2-3min
3	Matsyasana	2-3min
4	Sethu bandhasana	2-3min
5	Bhujangasana	2-3min
6	Yogamudra	2-3min
7	Ushtrasana	2-3min
8	Gomukasana	2-3min
9	Trikonasana	3-4min
10	Deep relaxation technique	3-5min
11	Ujjayi pranayama	3min
12	Nadisodana	3min
13	Trataka	5-7min
14	AUM Meditation	5-7min
	Total	**43-47 min**

In addition, single item assess sexual enjoyment, hair loss and future perspective. Item range is the difference between the possible maximum and the minimum response to individual items; most items take values from 1 to 4.

Result

The total EORTC QLQ-BR23 score in this study population before yoga therapy was MEAN ± SD 68.57 ± 3.47 & after yoga was 48.83 ± 3.15 . There was a significant improvement in quality of life after yoga therapy with P value <0.0001 (Table.1, Fig. 1)

Table 2: Eortc QLQ-BR23 Total Score in Treated Breast Cancer Patients Before and After Yoga

Total QLQ–BR23 Score	Before Yoga	After Yoga	P - Value
Mean±SD	68.57±3.47	48.83±3.15	0.0001 ***

***P value <0.0001: Extremely statistically Significant

Discussion

This study was done in 30 breast cancer patients completed treatment in the age group of 35 – 50 years, yoga therapy was effective in improving the quality of life.

Studies by Raghavendra M Raoal [7] and Cramp F[8] et al also showed the same findings .

Various postures were attained by doing yoga asana. These postures make muscles more flexible & improves its strength . While performing breathing exercises, abdominal and chest muscles become active & work rapidly.

Nikkanen TA[9] et al reported that these training reduces the upper limb dysfunctions following surgery, declines the back pain & produce improvement in shoulder joint motion .

Yen LL Patric WK [10] had reported in his study that the relaxation techniques practiced reduces the body's resistance . Yoga increases flexibility, body energy level, relaxation of body and mind & a sense of wellbeing[11]. It also reduces body pain and stress[12].

Yoga asana gives calmness to mind, relieves irritation, tension and depression. It also increases the sleep quality, body circulation, energy level of body. Thus Yoga asana improves the quality of life.

Conclusion

Yoga & breathing asana practiced in breast cancer patients improves the quality of life. So Yoga therapy may be recommended as one of the lifestyle modification practices in breast cancer patients.

Ethical Clearance: Taken from Madras medical college Ethical Committee

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Conflict of Interest: Nil

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