

# Impact of Mastectomy on the Quality of Life (QoL) of Breast Cancer Survivor Patients

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## ABSTRACT

**Aim:** To assess the quality of Life in patients who had undergone mastectomy for Breast cancer.

**Methodology:** A cross sectional study was conducted in the Out Patient of General Surgery Department at Pakistan Institute of Medical Sciences Islamabad from 01<sup>st</sup> June to 31<sup>st</sup> December 2019. Written informed consent was obtained from participants and questionnaire was used to assess physical, psychological, social and spiritual well being along with the bio data of the patient. Data was analyzed using SPSS version 20

**Results:** A total of 166 female participants with a mean age of 54.65±6.291 years were included. Most were married (97.6%) and were housewives (93.9%). One hundred and fourteen participants were diagnosed at stage 3 of the disease and vast majority received chemotherapy along with mastectomy. Good physical well being was reported by most with a mean score of 63.45±9.64. There was a moderate psychological score for most patients with a mean score of 43.05±7.03. High levels of personal distress and family distress were noticed. Spiritual wellbeing was moderate (mean value 47.15±6.27) with 39.2% participants reporting drastic changes in their spiritual life. High future uncertainty and massive financial burden was also reported. There was significant correlation between duration since treatment and physical wellbeing of the participants (p=0.003). However no significant correlation was found between stage of carcinoma and extent of fearfulness of future diagnostic tests.

**Keywords:** Quality of life, Mastectomy, Breast cancer.

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## INTRODUCTION

The rate of breast cancer has risen sharply all over the globe contributing 1 million diagnosed cases annually<sup>1</sup>, partly owing to increased screening and awareness. Pakistan claims the highest number of cases in Asia<sup>2</sup>. According to Khalfan et al<sup>3</sup> 50 out of 100,000 women are affected by breast cancer in Pakistan. Females of all age groups and ethnicities are affected. It is a life threatening condition in its advanced stage, if timely and adequate treatment is not sought. Mainstay of the treatment is mastectomy, coupled with chemotherapy which can be received before or after the surgical procedure, along with radiotherapy. Diagnosis of carcinoma directly affects the quality of life of the patients by rousing fear, social stigmas, concerns about failure of treatment and recurrence of disease. Breast cancer adds up to these insecurities as mastectomy renders the female body with obvious physical deformity which may lead to embarrassment and low self-esteem. This study aimed at understanding the effect of mastectomy on the quality of life of patients with breast cancers (CA breast) evaluating physical, emotional, psychological and social parameters. This understanding can help in developing a holistic approach towards treatment of breast cancer and involve provision of emotional and psychological support to the patients.

## MATERIALS AND METHODS

After obtaining approval from hospital ethical review board, this cross sectional study was performed in the department

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of General Surgery at Pakistan Institute of Medical Sciences Islamabad over a period of 06 months from 01<sup>st</sup> July to 31<sup>st</sup> December 2019. In this study those patients were included who had undergone mastectomy for CA breast at least two months ago. Patients with recurrent or metastatic disease were excluded. Participants were approached in the Out Patient department when they presented for follow up. Sampling was done using random non probability consecutive sampling technique.

Written informed consent was taken from participants. Bio data of each participant was obtained by the researcher which included age, gender, profession, stage of disease at diagnosis, and type of treatment received and time elapsed since treatment completed. Participants were interviewed using standardized questionnaire (QOL-CSV<sup>4</sup>) to assess quality of life with questions about physical well-being, psychological wellbeing, social wellbeing and spiritual wellbeing. Data thus obtained was entered and analyzed using SPSS version 20. Chi square test was applied to find co-relations with level of significance taken as p< 0.05. Data was then presented in the forms of tables and graphs.

## RESULTS

A total of 166 participants were included in the study with mean age of 54.65±6.291 years. Half of the participants belonged to age group of 50-59 years. All participants were female, out of which 162(97.6%) were married, 2(1.2%) were unmarried and 2(1.2%) were widows. Only 10(6.02%) were working women. Most of the participants had received treatment less than a year ago 97(58.4%), with highest number of cases 114(68.7%) being diagnosed at stage 3 of CA breast. Most of the participants 119(71.7%) had

received chemotherapy (Neo adjuvant and/ or adjuvant) in the course of their treatment. Majority of the correspondents reported good physical wellbeing with 41.6% participants having a score of 61-70 out of 80 with a mean value of 63.45±9.64. Psychological analysis showed moderate score with most participants (65.1%) scoring 41-50 out of 90 and a mean of 43.05±7.03.

High levels of personal distress were associated with diagnosis and treatment with most of the participants (46.4%) reporting score of 30-40 out of 50 with a mean of 36.86±6.55. Family distress since diagnosis was found to be very high with 72.9% respondents having extremely high score (10 out of 10). Fear factor was moderate with 52.4% 11-30 on a scale of 40 with a mean value of 11.36±8.29. Other social concerns scored moderately with highest number (42.7%) of respondents scoring 41-50 out of 80 with a mean value of 42.6±8.43. Most participants (59.7%) scored well (41-50 out of 70) in spiritual life (mean value 47.15±6.27) with 39.2% participants responding that their spiritual life changed as a result of cancer diagnosis drastically (scored 10 out of 10).

There was high uncertainty about future with 66.9% participants scoring 8-10 on a scale of 1-10. Majority of the participants had faced high financial burden since diagnosis for investigations and treatment with 111 (66.9%) participants scoring 10 out of 10. A vast majority of the participants reported some kind of change in their spiritual life in consequence of the diagnosis of carcinoma (96.4% scored >5 out of 10). However 86.7% participants stated change in sexuality to be less than 5 out of 10. There was significant correlation between duration since treatment and physical wellbeing of the participants (p=0.003). However no significant correlation was found between stage of carcinoma and extent of fearfulness of future diagnostic tests.

	Scoring on questionnaire	Percentage of respondents
Age	40-49 age	18.1%
	50-59	50%
	>60	41.9%
Physical well being	40-50	10.8%
	51-60	23.5%
	61-70	41.6%
	>70	24.9%
Psychological	≤40	24.1%
	41-50	65.1%
	>50	10.8%
Distress of diagnosis	≤30	19.9%
	30-40	46.4%
	41-50	33.7%
Fear factor	≤10	46.4%
	11-20	36.7%
	21-30	15.7%
	>30	1.2%
Social concerns	≤30	12.7%
	31-40	27.1%
	41-50	42.7%
	51-60	17.5%
Spiritual well being	≤40	9%
	41-50	59.7%
	51-60	31.3%

Figure 1: Stages of cancer at diagnosis

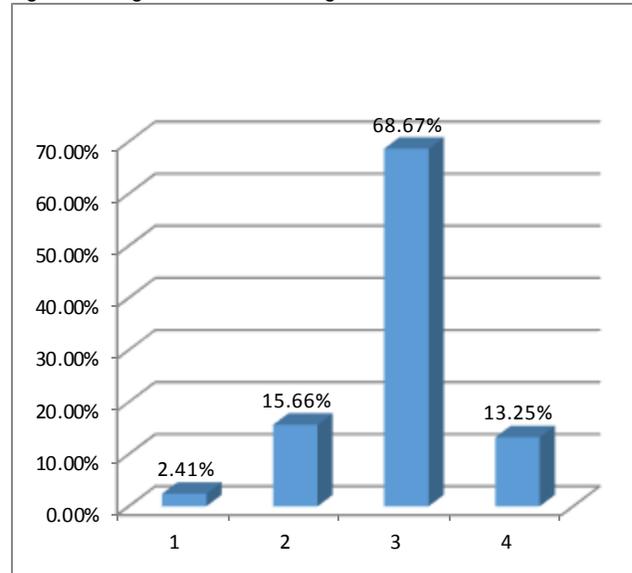
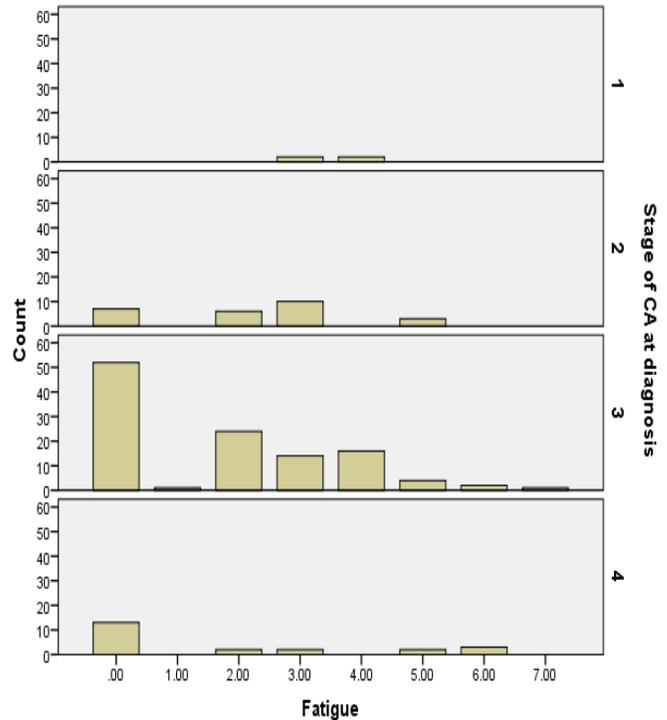


Figure 2: Cancer stages



**DISCUSSION**

Current study reveals that Quality of life of mastectomy patients was better in physical parameters, than in psychological aspects. Distress levels of participants and their family members were extremely high regarding initial diagnosis, during and after treatment. However fear about future investigations and recurrence was found to be low. Huge financial burden was reported along with high future uncertainty. However change in sexuality and body image was not reported in high numbers.

In a similar study conducted in Tehran, Montazeri et al<sup>5</sup> reported that there was improvement in physical functioning one year after the treatment of breast cancer. However there was poor social support, decreased sexual functioning with increased concerns about body image at 18 month follow up<sup>5</sup>. In Eastern China<sup>6</sup> participants also reported low QoL regarding future perspectives, body image and social functioning with high levels of insomnia and fatigue. Shafaei et al<sup>8</sup> also reports poor emotional performance of participants. High financial burdens of treatment were recorded in other parts of the world too.<sup>6,7</sup> However Costa et al from Brazil reported significantly decreased functional capacity causing increased morbidity and mortality<sup>9</sup> more so in cases with distant metastasis than those with loco-regional disease. In Saudi Arabia's population there was higher scores for body image and future perspectives<sup>10</sup> but had low scores for sexual functioning. In a long term follow up of 10 years conducted in Germany<sup>11</sup>, researchers found decreasing QoL from 5-10 years with respect to functional capacity and symptom scale, most notably in younger survivors. In another long term follow up study conducted in USA<sup>12</sup> improvement in overall QoL was observed in both, one year interval and in long term follow up. Impairment of cognitive functions and financial burden was however reported.

In most of the studies reviewed here, it is observed that psychological, emotional and financial factors contribute most in decreasing the overall Quality of Life in Breast cancer survivors. Long term follow up is needed to have an in-depth analysis of the impact of mastectomy on the functional capacity and physical symptoms of the patients. Health insurances and support groups for cancer survivors may be encouraged so that breast cancer survivors may lead a quality life after treatment.

## CONCLUSION

Considerable impairment is there in psychological and emotional factors affecting the Quality of life of breast cancer survivors post mastectomy.

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