



Original Research Article

Demographic evaluation and outcome of the early breast cancer patients undergoing breast conservation surgery as the primary modality of management – A single institutional experience at a medical teaching hospital

Dinesh Shet¹, Rohan Chandra Gatty^{1,*}, Reshmina C C D'Souza²

¹Dept. of Medical Oncology, Father Muller Medical College Hospital and Research Institute, Mangalore, Karnataka, India

²Dept. of General Surgery, Father Muller Medical College Hospital and Research Institute, Mangalore, Karnataka, India



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ABSTRACT

The rates of BCS in the Indian subcontinent vary between 11% and 34%, as compared to the management of breast cancer in the west where the rates of BCS are as high as 70% in early breast cancer. All this has brought to light the need for evaluation of the best and the most functional and cosmetic surgeries that are available in the management of breast cancer especially when detected in the very early stages. With all this in mind we decided to study the demographic evaluation and outcome of the early breast cancer patients undergoing breast conservation surgery as the primary modality of management at a medical teaching hospital.

Materials and Methods: The study was done at the department of general surgery, oncosurgery, radiation oncology and medical oncology at Father Muller Medical College Hospital. All breast cancer patients underwent the following treatment regimen:- Surgery that included BCS with Axillary Dissection followed by neo adjuvant chemotherapy CFU regimen and then after completion of systemic chemotherapy 50-55 Gy of radiotherapy to the remaining breast with a tumor bed boost of 9-12 Gy in daily 2 Gy fractions for 5 days in a week over 5-6 weeks was given.

Results: In the present study new-found that the most common site in the breast for breast cancer was the superior - lateral quadrant of the 70 cases 56 cases 80% were in the superior - lateral quadrant. Common in this area. The most common histology seen in 67 cases 95.71% was infiltrating duct carcinoma. The median age was 45 years. 65 cases 92.86% had node-negative disease and 54 cases 77.14% tumors were hormone receptor-positive. One case developed isolated local recurrences which were managed surgically. None of the rest 69 cases of them had recurrence during follow up. The mean age was 44.75 with SD 8.8 years. The youngest was 28 years and the eldest was 63 years of age. In the 295 cases, we had 3 male cases, among those who had BCS all were females.

Conclusion: We would like to conclude that whenever it is possible to conserve the breast every woman has to be given the option of breast conservation. It is also needed that the health care professionals and the primary health care physicians be sensitized to the need for effective clinical breast examination so that the rate of detection of early cancer be hastened and more women are offered the option of breast conservation.

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1. Introduction

The rates of BCS in the Indian subcontinent vary between 11% and 34%, as compared to the management of breast cancer in the west where the rates of BCS are as high as

70% in early breast cancer.¹⁻³ In India in the past few years there has been a growing trend in the incidence of breast cancer in the young being detected at an early age which is as a result of increased awareness of the public, education of Anganwadi workers and health care professionals to detect breast cancer by making them aware of the correct steps

* Corresponding author.

E-mail address: drrohan1975@gmail.com (R. C. Gatty).

of clinical breast examination and training them to teach the women about self breast examination.^{4,5} All this has brought to light the need for evaluation of the best and the most functional and cosmetic surgeries that are available in the management of breast cancer especially when detected in the very early stages. With all this in mind we decided to study the demographic evaluation and outcome of the early breast cancer patients undergoing breast conservation surgery as the primary modality of management at a medical teaching hospital.

2. Materials and Methods

The study was done between the time period of 01-1-2016 TO 31-01-2019 at the department of general surgery, oncosurgery, radiation oncology and medical oncology at the prestigious Father Muller Medical College Hospital and research institute at the smart city of Mangalore in the state of Karnataka, South India.

In the study we recruited all patients who were detected as breast cancer by clinic-radiological means and proved by histology in the study we excluded those cases that were unwilling to be included, those with recurrent breast cancer and those who had undergone treatment prior to coming to our institution.

In our study we collected the following details, the demographic details that included name, age, gender and address. The clinical details that include modes of presentation, the stage of cancer at presentation, the treatment planned, and the pathological details that included size, lymphnode status, lymphovascular extension. The immunohistological and hormone receptor details like the receptor status of ER, PR, Her2u.

All patients underwent the following treatment regimen:-

Surgery that included BCS with Axillary Dissection followed by neo adjuvant chemotherapy CFU regimen and then after completion of systemic chemotherapy 50-55 Gy of radiotherapy to the remaining breast with a tumor bed boost of 9-12 Gy in daily 2 Gy fractions for 5 days in a week over 5-6 weeks was given.

Those who were found to be having a hormone positive status were treated with hormonal therapy for a period of 1 year.

2.1. Data analysis

The data that was collected was entered in the Microsoft excel sheet and given for SPSS analysis version 23. The categorical data was analysed by the use of mean, median, mode, the qualitative data was assessed by Chi square test.

3. Results

After excluding those who did not meet the predefined criteria we analyzed around a total of 182 cases who were suitable for BCS When given an option, patients with breast

cancer do desire to conserve their breast of them only 70 chose BCS.

In the present study new found that the most common site in the breast for breast cancer was the superior - lateral quadrant of the 70 cases 56 cases 80% were in the superior - lateral quadrant. This quadrant has the most amount of glandular tissue that explains why cancer is the commonest in this area.

The most common histology seen in 67 cases 95.71% was infiltrating duct carcinoma. Median age was 45 years. 65 cases 92.86% had node negative disease and 54 cases 77.14% tumors were hormone receptor positive. One case developed isolated local recurrences which were managed surgically. None of the rest 69 cases of them had recurrence during follow up.

The mean age was 44.75 with SD 8.8 years. The youngest was 28 years and the eldest was 63 years of age. In the 295 cases we had 3 male cases, among those who had BCS all were females.

On evaluation of the occupational status 38 cases 54.29% were working and 61 cases 87.14% were married.

Table 1: Type of surgery done for breast cancer in our institute

Type of surgery done for breast cancer in our institute	Case number	Percentage
MRM done	169	70.71%
BCS done	70	29.29%
Total	239	100.00%

Table 2: Age in years

Age in years	Case number	Percentage
20-30 Years	4	5.71%
31-40 Years	20	28.57%
41-50 Years	27	38.57%
51-60 Years	15	21.43%
> 60 Years	4	5.71%
Total	70	100.00%

Table 3: Area of involvement

Area of involvement	Case number	Percentage
Superior - lateral quadrant	56	80.00%
Inferior - lateral quadrant	9	12.86%
Superior - medial quadrant	3	4.29%
Inferior - medial quadrant	2	2.86%
Total	70	100.00%

4. Discussion

In the present day breast conservation has become the treatment of choice for treatment of carcinoma of the breast as the patients in the present day prefer to have a more functional and cosmetic outcome and are also detected early.^{6,7} In spite of this in India the rates of BCS are very low and this modality of treatment is not very popular among breast surgeons because of the lack of facilities, the extensive follow up and the literacy rate of the patients.^{8,9}

But in the recent times the trend seems to be changing and more and more females are demanding alternative options for complete breast removal for cancer. The health sector of India has seen a drastic change in the infrastructure and the facilities that are available or treating malignancies especially cancer of the breast. The rate of medical tourism in India has also increased dramatically in the past.

In the present study of the 82 cases who were suitable for BCS When given an option, patients with breast cancer do desire to conserve their breast of them only 70 chose BCS, the rate of opting for BCS being 85.3 percent, this shows that still a good number of individuals refer to opt of complete breast removal as compared to conserving it for various reasons, most often it was the fear that the fear of recurrence 8 of 12 (66.67%) followed by difficulty in repeated visits to hospitals 4 of 12 (33.33%).

80% of cancers were located in the superior - lateral quadrant. Most studies show that this quadrant is the commonest are of breast lesions.⁶⁻⁹

The most common histology seen in 67 cases 95.71% was infiltrating duct carcinoma Most studies have similar findings.⁶⁻⁹ Median age was 45 years. 65 cases 92.86% had node negative disease and 54 cases 77.14% tumors were hormone receptor positive. One case developed isolated local recurrences which were managed surgically. None of the rest 69 cases of them had recurrence during follow up.

The mean age was 44.75 with SD 8.8 years. The youngest was 28 years and the eldest was 63 years of age. Anderson et al⁹ had similar findings.

Among all the treatment options that are available for breast carcinoma the most important modality is the BCS as it has with it the option of conserving breast which has a tremendous impact on the psychological and social well-being of the female as proved in various studies.⁶⁻⁹

5. Conclusion

We would like to conclude that whenever it is possible to conserve the breast every woman has to be given the option of breast conservation. It is also needed that the health care professionals and the primary health care physicians be sensitized to the need for effective clinical

breast examination so that the rate of detection of early cancer be hastened and more women are offered the option of breast conservation.

6. Source of Funding

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7. Conflict of Interest

None.

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Author biography

Dinesh Shet, Associate Professor

Rohan Chandra Gatty, Associate Professor

Reshmina C C D'Souza, Associate Professor

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