

## Study of Multimodality Management of Carcinoma Breast

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**Abstract-** Carcinoma Breast has identified as a malignant neoplasm with its ability to locally recur and capacity to metastasizes distantly. This study was conducted at King George Hospital Visakhapatnam with 40 patients of both sexes. According to TNM staging Stage II cases are 18 in number, Stage III as 22 in number. These cases are treated with Modified Radical Mastectomy followed by adjuvant treatment with chemotherapy, radiotherapy, hormonal therapy. Side effects are medically manageable Grade I, Grade II reactions which are treated with medication. Out of 40 patients, 37 patients showed complete response, and 3 patients showed progressive disease.

**Key words-** Carcinoma Breast, modified radical mastectomy, adjuvant chemotherapy, radiotherapy, and hormonal therapy.

### I. Introduction

Carcinoma breast is most common cancer in females in urban India<sup>1</sup>. With Mammography it can be identified early in Western countries, but not so in India because Mammography facility is not available all over in India. Carcinoma breast is a curable cancer when identified early and intervention is made with surgery and radiotherapy, chemotherapy +/- hormonal therapy<sup>2</sup>. Being accessible for examination to self and physician the lesions can be identified early with Ultrasonomammography. The lesions can be identified when in millimeter size. Many advances taken place in last decade that understood the disease as molecular level and plan treatment effectively by surgery targeted chemotherapy and radiotherapy by 3D Conformal Radiotherapy, Intensity Modulated Radiotherapy, Image Guided Radiotherapy.

Management of Carcinoma breast is by stage wise and early breast cancer can be treated by breast conservative surgery and accelerated partial breast irradiation<sup>3</sup>. Advanced stages can be managed by modified radical mastectomy followed by chemotherapy and chest wall and supra clavicular fossa irradiation.

Those hormonal receptors are positive depending on menopausal status treated with Tamoxifen or Letrozole or Anastrozole.

**Aim:** The aim of this study was, response evaluation of multi modality management in carcinoma breast in Indian subset of patients.

**Methods** This study was undertaken at King George Hospital, Visakhapatnam, a tertiary care government institute with academic U.G and P.G teaching and research potential from April 2017 to April 2019. The clinical material composed of carcinoma breast patients attending cancer outpatient department. Primary objective is complete response and secondary objective is overall survival and performance status Carcinoma breast patents who underwent surgery .adjuvant chemotherapy .adjuvant radiotherapy and hormonal therapy was studied

**Results:** Total 40 patients age 30 to 69 years included. over two year study. Mean age was 40 years.,90% (36 ) patients were females, 10% (4) were males.

45% patients are stage II and 55% patients are stage iii. 92% showed complete response and 8% showed progressive disease.

### II. Material And Methods

This study was undertaken at King George Hospital, Visakhapatnam from April 2017 to April 2019. The clinical material composed of carcinoma breast patients attending cancer outpatient department and who underwent surgery, chemotherapy hormonal therapy.

Primary objective is complete response and secondary objective is overall survival and performance status

### INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria was histologically proven Invasive Duct cell Carcinoma age 20-69 years, both sexes, hemoglobin more than 10 grams. Performance status 0,1. Exclusion criteria was other than Invasive Duct cell

Carcinoma age more than 70 years, HB < 10 grams, Performance status 3,4 and patients not medically fit for chemo radiation.

After admission all patient were examined loco regionally and searched for metastasis. Local examination of diseased breast and supra clavicular fossa opposite breast and supra clavicular. Other systematic examination consists of cardio vascular system, respiratory system, central nervous system and per abdomen examination.

Investigations are complete blood picture for hemoglobin status and cell counts, renal function test for blood urea and serum creatinine, liver function test, ultrasound abdomen and both breast mammography if more than 40 years, if less than 40 years MRI breast. X-Ray chest P A view, viral markers, blood grouping and typing, contrast enhanced CT Abdomen and Brain, ER,PR,HER2 testing

Of the 40 patients complaints of painless lump in breast of 6-2 months duration<sup>4</sup>. On examination palpable hard lump noticed and biopsy was taken and after confirmation of diagnosis and consent was taken for treatment. Modified Radical Mastectomy was done<sup>5</sup> and after two weeks chemotherapy was done with four cycles of adramycin 60 mg/m<sup>2</sup>, cyclophosomide 600mg/m<sup>2</sup>., followed by four cycles of paclitaxel 175 mg/m<sup>2</sup> administered for every three weeks. And after two weeks patients received 50 Gy/25 fractions, weekly five days over a period of five weeks radiation was delivered to chest wall and supra clavicular fossa by MT ,LT and DA fields<sup>6,7,8</sup>.

Those who are hormonal receptor positive received hormonal therapy. The duration of main clinical follow up was 24 months ranging from 3 months to 26 months According to clinical and radiological evaluation, 37 patients showed complete response , and 3 patients progressive disease

All the patients were assessed at recent follow-up. 37 patients had good locoregional control and no metastasis; 3 patients showed local recurrence treated by palliative chemotherapy with symptomatic manageable side effects<sup>9</sup>.

### III. Discussion

Carcinoma breast is most common malignancy in females. If effects both sexes. In our study 4 patients are males and 36 patients are females.

Age wise  
 30 years to 39 years - 6 patients  
 40 years to 49 years – 14 patients  
 50 years to 59 years – 12 patients  
 60 years to 69 years – 8 patients

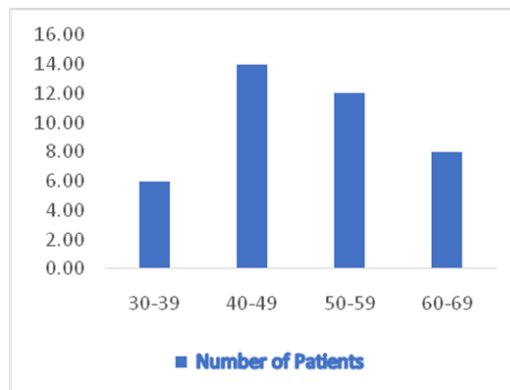


Fig 1: Age Distribution

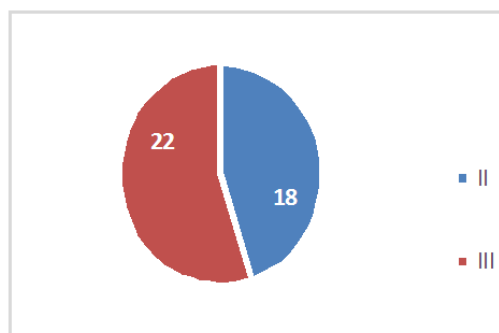


Fig 2: Stage Distribution

Figure 2 states that in our study  $\frac{3}{4}$  of the patients are below 60 years and 18 patients are stage II and 22 patients are stage III. Of the 40 patients, 37 patients showed complete response,, 3 patients showed progressive disease .

Mostly carcinoma breast is of unknown a etiology and 5% shows familiar pre-disposition with BRCA-1 and BRCA – 2 genes. The outcome of disease depends on tumor factors like tumor size, grade and nodal status. Host factors like age, sex and stage of the disease. It can be identified even when tumor not palpable by mammography and ultrasography.

For early staged carcinoma breast and who can be on regular follow-up breast conservative surgery followed by radiotherapy can be undertaken and for those who cannot be on regular follow-up modified radical mastectomy was done for early and late stages those who do not have metastasis followed by chemotherapy and radiotherapy. After two weeks of surgery, chemotherapy was done followed by external beam radiotherapy for those who are having 4 or more involved nodes, T3 or T4 tumors, muscle invasion and positive margin cases. Tamoxifen given for post-menopausal women of carcinoma breast receptor positive cases and letrozole in pre-menopausal cases for three <sup>cases10,11</sup> . In our study we have achieved good locoregional control and disease-free survival when compared with Huang et al systemic review 2003. 3 cases got chest wall recurrence within limits of trials in literature<sup>1314</sup>. Optimal treatment radiotherapy techniques are required to cover the treatment volumes while minimizing the dose to surrounding structures. Optimal treatment for carcinoma breast should include multi-disciplinary, multi – modality patient approach

#### IV. Conclusions

1. Carcinoma breast is most common malignancy in females in urban India. ESMO Clinical Practice Guidelines for
2. Carcinoma breast has tendency for recurrence and spreads locally and distantly.
3. The ideal goal in management of Carcinoma breast is to achieve good locoregional control and overall survival.
4. The treatment of choice in most cases of carcinoma breast is modified radical mastectomy followed by adjuvant chemotherapy and chest wall and supra clavicular radiotherapy and +/- hormonal therapy with supportive care in indoor and outdoor sett[ng.therapeutic challenges can overcome byproper selection of cccases and diligent supervision.
5. The recurrences are due to presentation in advanced stages.
6. Carcinoma breast has screening by Ultrasonomammography which identifies the lesions in micro millimeters even before lump is palpable.
7. The early we diagnose carcinoma breast, better are chances of locoregional control and overall survival.
8. It is advisable to conduct study in more number of patients and longer follow-up is required for authentication of data.

#### References

- [1]. Fact Sheets by Cancer. [http://globocan.iarc.fr/Pages/fact\\_sheets\\_cancer.aspx](http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx).
- [2]. NCCN Clinical Practice Guidelines in Oncology. Breast Cancer.Version1. 2019.
- [3]. The St Gallen International Expert Consensus on the Primary Therapy of Early Breast Cancer 2013. Ann Oncol. 2013
- [4]. Taghian A, ElGhamry MN, Merajver SD. Clinical features and management of locally advanced breast cancer. UpToDate. 2018;1-10. Available at <http://www.uptodate.com/online>
- [5]. Haagensen CD, Stout AP. Carcinoma of the Breast: II. Criteria of operability. Ann Surg. 1943;118:859.
- [6]. Sen AK, Gupta DTK. Cancer of the breast and its treatment. Ind J Surg. 1962;833-47.
- [7]. ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol. 2013; 24 Suppl 6:vi7-23.diagnosis, treatment and follow- up. Ann Oncol. 2012; 23Suppl 7:vii11-9.
- [8]. Suppl 6:vi7-23.diagnosis, treatment and follow- up. Ann Oncol. 2012; 23Suppl 7:vii11-9.
- [9]. NCCN Clinical practice guidelines 2019
- [10]. Morrow M. The evaluation of common breast problems. Am Fam Physician. 2000; 61(8):2371- 2378. .
- [11]. Sauteretal. Guidelines for human epidermal growth factor receptor 2 testing: biologic and methodologic considerations. J ClinOncol.2009;27:1323-33.
- [12]. Dowsett M, Cuzick J, Ingle J et al. Meta-analysis of breast cancer outcomes in adjuvant trials of aromatase inhibitors versus tamoxifen. J Clin Oncol. 2010;28 (3):509-18.
- [13]. M, Hansen PS, Overgaard J et al. Postoperative radiotherapy in high-risk premenopausal women wit breast cancer who receive adjuvant chemotherapy. Danish Breast Cancer Cooperative Group 82b Trial. N Engl J Med.1997;337(14):949-55.
- [14]. Ragaz J, Olivotto IA, Spinelli JJ et al. Locoregional radiation therapy in patients with high-risk breast cancer receiving adjuvant chemotherapy: 20-year results of the British Columbia randomized trial. J Natl Cancer Inst. 2005; 97(2):116-26
- [15]. Impact of follow-up testing on survival and health-related quality of life in breast cancer Patients. A multicenter randomized controlled trial. The GIVIO Investigators. JAMA. 1994;271(20):1587-92.