



EVALUATION OF CLINICO-PATHOLOGICAL FINDINGS OF BREAST CARCINOMA IN A TERTIARY CARE HOSPITAL IN WESTERN INDIA

General Surgery

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ABSTRACT

Background: Carcinoma breast is one of the most common cancer affecting women worldwide. The breast is a complex structure and any unnatural change affects the body and psyche of the person. The aim of this study was to observe age distribution, clinical signs and symptoms and pathology of malignant breast lump and draw a correlation between clinical and histological diagnosis of patients presenting with breast lump.

Method: This study is a retrospective study of carcinoma breast done from Aug 2016 to July 2018. It comprises 120 cases of carcinoma breast who presented at the outpatient surgical department of a tertiary care center.

Results: According to our study, it is quite evident that the peak incidence of carcinoma breast in our semiurban population is in the fifth and sixth decade. Most of our patients were postmenopausal and the majority were staged as IIA. Invasive Ductal carcinoma – No Special type was the most common histopathological pattern seen in 114 (95%) cases and most tumours were Scraff Bloom Richardson Gd II. Prognostically, majority of tumours (53%) was assessed as 'good' as per Nottingham Prognostic Index Score.

Conclusion: Breast cancer is a common cancer worldwide with varied presentation. This study gave an insight to the clinico-pathological profile of breast cancer in our area.

KEYWORDS

INTRODUCTION

Breast cancer is the most common site-specific malignancy in women and is the most common cause of cancer-related death in women aged 20-59 years. 26% of all newly diagnosed cancers in females are breast cancer. Breast cancer accounts for 15% of all cancer-related deaths in women.¹ The incidence of breast cancer in India is increasing. It is reported that almost one in 22 women in India is likely to suffer from breast cancer during their lifetime.² It is most often observed anecdotally that due to lack of knowledge and ignorance, patients of carcinoma breast clinically present in a late stage of the disease. Breast cancer has been classically described as disease of the old age with the peak incidence in the fifth and sixth decades; however, in our country, this disease is commonly diagnosed a decade earlier.³ The present study was undertaken to include patients from Aug 2016 to July 2018 to characterize the clinical profile, histopathologic types, grades and stage of the disease.

MATERIALS AND METHODS

This study is a retrospective study of carcinoma breast done at tertiary care hospital in Western India from Aug 2016 to July 2018.

It comprises 120 cases of cancer breast who presented at the outpatient department.

INCLUSION CRITERIA-

1. All patients of carcinoma breast who reported to outpatient department
2. Patient who had undergone pre or post-operative histopathological diagnosis for carcinoma breast

EXCLUSION CRITERIA-

1. Cases who were operated elsewhere
2. Cases in whom neoadjuvant chemotherapy was already given.

Methods of collection of data:

1. Detailed history taking
2. Clinical Examination
3. Routine Laboratory investigations
4. Relevant special investigation
5. Histological examination of the tissue was undertaken & tissue was taken from the breast by biopsy, local excision of the lump or specimen from the mastectomies.

RESULTS

In this study, 120 cases of malignant breast lump were observed. In those 120 cases, majority were females 118 (98.3%) and number of

males was 2 (1.7%). The age of patients ranged from 27 years (youngest) to 81 years (eldest), with mean age of 45.2 years. Maximum no. of malignant cases was encountered in the age group of 41 – 50 years (35%), and then in 4th & 6th decades (16.6% and 21.6% respectively) (Table 1).

Most of our patients were postmenopausal and had a body mass index (BMI) >25 (Table 2,3)

Most common site of tumour was the upper outer quadrant (UOQ) accounting for 65% of all cases. (Table 4)

Painless mass was the most common symptom found in maximum number of patients i.e. 78 (65%) of cases. Painful mass was present in 42 (35%) patients. Retraction, Ulceration and Nipple discharge was present in 26 (21.6%), 18 (15%) and 7 (5.8%) patients respectively. Some patients presented with more than one symptom, the percentage of which are as shown in Table 5.

TABLE 1- Age distribution of carcinoma Breast

Age (in yrs)	Number(n)	Percentage (%)
21-30	06	5
31-40	20	16.6
41-50	42	35
51-60	26	21.6
61-70	16	13.3
>70	10	8.3

TABLE 2- Relationship to menstrual status

Menopausal Status	Number (n)	Percentage(%)
Premenopausal	47	39.1
Postmenopausal	73	60.8

TABLE 3- Relationship to BMI

BMI	Number (n)	Percentage(%)
Normal	18	15
Overweight	75	62.5
Obese	27	22.5

TABLE 4. Distribution of cases according to quadrant

Quadrant	Number (n)	Percentage(%)
UOQ	78	65
UIQ	22	18.4
LOQ	20	16.7
LIQ	15	12.6
Central	05	4.2

TABLE 5. Modes of presentation of malignant breast lump

Signs & Symptoms	Number (n)	Percentage(%)
Painless lump	78	65
Ulceration	18	15
Painful Lump	42	35
Retraction	26	21.6
Nipple discharge	07	5.8

**FIG 1 – Ulceration& fungation****FIG 2- Peau d'orange**

With American Joint Cancer Committee staging (AJCC), it was observed that most of the tumors belonged to pathological stage II comprising of IIA and IIB each, attributing to 35% & 31.6% respectively followed by stage III in 29.1% of the tumors. (Table 6) With the NPI scoring system 53% of the tumors showed 'good' prognosis followed by 'moderate' and 'poor' prognosis in 40.3% and 6.7% of the tumors respectively.

TABLE 6: AJCC cancer staging

Stage	Number (n)	Percentage(%)
I	5	4.1
IIA	42	35
IIB	38	31.6
IIIA	23	19.1
IIIB	9	7.5
IIIC	3	2.5
IV	NIL	NIL

The most common histological type of malignancy was Infiltrating Ductal Carcinoma No Special Type, seen in 108 out of 120 cases (90%). Invasive lobular carcinoma, Mucinous & Spindle cell carcinoma was seen in 09 (7.6%), 02 (1.6%), & 01(0.8%) respectively. (Table 7)

TABLE 7 : Histological type of malignancy

Type	Number (n)	Percentage(%)
Invasive Ductal Carcinoma	108	90
Invasive Lobular Carcinoma	09	7.6
Mucinous Carcinoma	02	1.6
Spindle Cell Carcinoma	01	0.8

Majority of the tumours were Scraff Bloom Richardson Gd II – 74 (61.6%), followed by Gd I – 28 (23.3%) & Gd III – 18 (15%) same as has been depicted in Table 8.

TABLE 8 : Scraff Bloom Richardson Grading:

Grading	Number(n)	Percentage(%)
I	28	23.3
II	74	61.6
III	18	15

DISCUSSION

In the present study, majority, 42/120, (35%) cases belonged to 5th decade of age with the mean age of 45.2 years which is similar to that reported in Indian and Asian literature.⁴⁻⁶ The occurrence of breast carcinoma above 50 years of age in our study constituted 43.2% cases, which is different from western literature that depict nearly 75.0% of patients with breast cancer are above 50 years of age.⁷ The finding of carcinoma in 2 (1.7%) male patients was not surprising as studied by other authors.⁸⁻¹⁰

Renahan analyzed 31 studies and discovered a 12% increase in the risk of developing breast cancer for each 5-point increase in BMI.¹¹ 85% of our patients had a BMI >25. Greater numbers are required to stratify the risk involved with different BMIs.

Majority of the cases were found to be Postmenopausal – 73 (60.8%) as compared to Premenopausal – 47(39.1%).¹²

The most common site of tumor was the upper outer quadrant (UOQ) accounting for 65.0% of all the cases.⁶⁻⁷

Painless mass was the most common symptom found in maximum number of patients i.e. 78 (65%) of cases. Painful mass was present in 42 (35%) patients. Ulceration, retraction and nipple discharge was present in 18 (15%), 26 (21.6%) and 7 (5.8%) patients respectively. This data is similar to the data obtained by Muqtadir et al and Mudholkar et al who reported 53.3% involvement of upper outer quadrant of breast.¹³⁻¹⁴

The NPI scoring has been widely adopted as a prognostic tool for assessing the prognosis in breast carcinoma patients. It is based on three parameters (Tumor size, tumor grade and axillary node status)¹⁵. The index is defined as four subtypes basing on the score such as 'excellent' (<2), 'good' (2 to 3.4), 'moderate' (3.41 to 5.4) and 'poor' (>5.41). The five year survival rate varies from 80% in patients with 'good' prognosis to 42% and 13% in patients with 'moderate' and 'poor' prognosis, respectively. In our study, maximum number of cases (53%) had "good" prognosis index.

The most frequently observed histopathological pattern was invasive ductal carcinoma NST as seen in 108 cases, i.e 90 % of the total 120 specimens followed by other histological types such as invasive lobular carcinoma, mucinous, and spindle carcinoma as seen in 7.6%, 1.6% and 0.8% of the total specimens, respectively, which corroborates with the observations made by various authors.^{5,6,7,16}

Histopathologic grade was coincident with AJCC stage as majority of our patients belonged to SBR grade II and AJCC stage II. This was in concurrence with the study conducted by Mohapatra et al.¹⁷

CONCLUSION

This study has provided information about the clinico-pathological aspects of breast cancer in patients. The finding of invasive ductal carcinoma NST grade II, AJCC stage II as well as 'good' NPI score in majority of patients is noteworthy. Based on these findings, the five year survival of the study population is predicted to be nearly 60 to 75% which needs a long term follow up for validation.

Conflicts of interest

The authors declare no conflicts of interest

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