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COMPARATIVE STUDY OF PRESENTATION AND MANAGEMENT OF CARCINOMA BREAST IN PRE- AND POST- MENOPAUSAL WOMEN

Surgery

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KEYWORDS

INTRODUCTION

The incidence of breast cancer is rising in India (22.9%) and is now the second most commonly diagnosed cancer in women after cervical cancer [1]. In young women, breast cancer tends to be more aggressive, larger in size and possesses a poorer prognosis when compared to older women [2-4]. Age is an independent prognostic factor even when size and nodal status are considered. Apart from the biological behavior of tumors, the lack of adequate screening and awareness is the major contributory factor in the larger and higher stage of cancer in this age group. Due to the relative infrequency of breast cancer in this group and the universal nature of the symptoms related to benign disorder of the mammary gland, tumor diagnosis is usually delayed, and thus contributes to advanced stages of this disease. [19, 20, 21]This study evaluates the difference between pre- and post-menopausal breast cancer women regarding presentation and management.

Aims And Objectives

The main aim of this study is to compare difference between pre- and post-menopausal breast cancer in women regarding –

1) Presentation
2) Management.

METHODOLOGY:

Study Design: PROSPECTIVE OBSERVATIONAL STUDY

Place: RIMS, RANCHI

Duration: 2years (November 2019- October 2021)

Inclusion Criteria:

Patients who had natural menopause.
Patients who attained menarche.

Exclusion Criteria:

Patients who have undergone hysterectomy.
Patients who where having any other ovarian problem.
Patients whose menopausal status was not specified.
Patients who had a personal history of cancer other than breast cancer.

Procedure:

A detailed history was taken and salient features were noted including demographic data, complaints with duration,Menstrual history, History of child birth and brest feeding, General examination- Built, Pallor, Jaundice, Cyanosis, Edema lymphadenopathy particularly axillary and supraclavicular.

Local examination including **areola** (for any crack, fissure, ulcer or dimpling, **skin over the breast**(for any redness, dimpling, retraction, puckering, ulceration, fungating mass and peu-de- orange)and discharge, if any, was noted.

Investigations:

Routine investigation and diagnostic investigations (fnac/ trucut biopsy) and other imaging (USG, Mammography,MRI as required)

TREATMENT:

The treatment was given according to clinical staging and diagnosis. Four types of treatment was given:

1. Operative treatment: modified radical mastectomy, toilet mastectomy, wide local excision, MRM with b/l oophorectomy.
2. Chemotherapy: adjuvant & neoadjuvant chemotherapy were given to most of the patients CAF. regimen were most commonly used.
3. Radiotherapy: it was given to patients who underwent MRM with b/l oophorectomy.
4. Hormone therapy: given in both adjuvant & neoadjuvant form. Tamoxifen was mainly used. In some post operative cases aromatase inhibitors (anastrozole) was also used.

FOLLOW- UP:-

Patients were followed up post operatively for a period between 1 months to 6 months. Examination was done to exclude local recurrence & distant metastasis using history/physical examination / Mammography.

Observations:

Among 122 female patients, 49 (40.16%)patients were premenopausal and 73(59.83%) patients were postmenopausal. In this study, the age at diagnosis ranged between 15 -85 years with mean age of 45.7years. More than half (61%) of patients were diagnosed between 45-55years. About 29% were aged younger than 45years and 10%were aged older than 55years at presentation.

1. Presenting Complaints:-

All patients presented with a lump in the breast. Pain, ulcer, skin changes and nipple discharge were present in some patients along with a lump in the breast.

Table Comparing The Presenting Complaints

	Premenopausal (N=49)	Postmenopausal (N=73)
Lump	49 (75.5%)	73 (65.7%)
Pain	2 (4.0%)	3 (4.1%)
Ulcer	9 (18.3%)	21 (28.7%)
Nipple discharge	1 (2.0%)	1 (1.3%)
Skin changes	9 (18.36)	10 (13.6%)

100% patients presented with lump in the breast. Next most common presenting symptom was skin changes and ulcer for both premenopausal and postmenopausal patients.

2. Side Of Lump:

Out of 49 premenopausal patients, 26(61%) had lump in right breast and 23(39%)had lump in left breast. Out of 73 postmenopausal patients, 41(56%) had a lump in the right breast and 32(44%)had a lump in the left breast.

There were no case of bilateral breast cancer in this study.

Table Showing Side Pediliction

	Premenopausal (N=49)	Postmenopausal (N=73)
RIGHT	26(61%)	41(56%)
LEFT	23(39%)	32(44%)

3. Site Of Lump:

In the majority of the patients, the lump was present in the upper quadrant in both pre- and post-menopausal women.

Site of lump	Premenopausal(N=49)	Postmenopausal(N=73)
UPPER OUTER	30	58
LOWER OUTER	4	2

LOWER INNER	2	1
UPPER INNER	9	2
CENTRAL	4	10

About 62% lump is present in upper outer in premenopausal women and 79% lump is present in upper outer quadrant in post menopausal women.

Histopathological Types:

Infiltrating duct cell carcinoma was the most prominent histopathological type accounting about 122 of total cases in which 49 were premenopausal and 71 were postmenopausal women. Two postmenopausal women had lobular carcinoma.

Table

Histopathological type	Premenopausal (N=49)	Postmenopausal (N=73)
Infiltrating ductal carcinoma	49	71
Lobular carcinoma	0	2

Treatment:

Overall 40 premenopausal and 55 postmenopausal patients were given adjuvant treatment, 6 premenopausal and 13 postmenopausal patients were given neoadjuvant treatment and three were given palliative treatment as they had advanced disease. A 122 total of patients underwent surgery and modified radical mastectomy (MRM), Toilet mastectomy, MRM with bilalteral oophorectomy and Wide local excision was done to all these patients.

Table

	Premenopausal (N=49)	Postmenopausal (N=73)
MRM followed by Adjuvant chemotherapy	40	49
Neoadjuvant chemotherapy followed by MRM followed by Adjuvant chemotherapy	6	12
T.M. followed by Adjuvant chemotherapy	0	6
Neoadjuvant chemotherapy followed by T.M. followed by Adjuvant chemotherapy	0	1
MRM+b/l Oophorectomy followed by Radiotherapy	1	1
WLE with or without C/T	2	4

Cyclophosphamide, Adriyamycin and 5-FU given for both adjuvant and neo-adjuvant chemotherapy in both pre and post menopausal women. Totally, 2patients were given radiotherapy. Adjuvant radiotherapy was given to 93 patients at a dose of 5000 cGy for 25 fractions.

After surgery, swelling and pain in the limbs were the most common adverse effects experienced by the majority of patients. During chemotherapy, most of the patients experienced vomiting, nausea, loss of appetite and alopecia. During radiotherapy, dehydration and fatigue were the mostly reported adverse effects.

DISCUSSION

In this study, the age at diagnosis ranged between 15-85 years with mean age of 45.7 years and median age of 45 years with standard deviation of 11.70. More than half of patients (61%) were diagnosed between 45-55 years.More than 50% of women included in the study were diagnosed before the age of 50 years, in contrast to the western settings where only 23% of women younger than 50 years presented with breast cancer[8] .

In this study, lump in the breast was the chief presenting complaint of all the women in this study as reported in various studies.[11,12,14,22] 2 patient presented with complaint of pain or nipple discharge. During patient interview, it was found that almost all women found a lump in their breast by themselves, but due to lack of knowledge about breast cancer they were not able to detect their disease. The problem of late presentation is mainly due to rural background, poverty and lack of awareness. Hence by educating the masses on self-breast examination and screening techniques, they can detect their disease themselves which could also help in early diagnosis of the disease.

In this study majority of patients presented in upper and central quadrant of breast in both pre and post menopausal women. 61% in premenopausal and 72% in postmenopausal women presented with breast cancer in upper outer quadrant of breast. The incidence of breast cancer was more in the upper and central quadrants of either side probably because of larger volume of breast tissue is present in that quadrants.[6]

As reported in most of the previous studiesin this study also, infiltrating ductal carcinoma was the prominent histopathological type.[11,12,20,21] Other type include lobular carcinoma. There was not a single case of carcinoma *in situ* reported.

Assessment of hormone receptor status done for which TAMOXIFEN or ANASTRAZOLE given after completion of chemotherapy. Most of the patients were found either estrogen positive or progesterone positive and majority patients were lymph node positive.

Majority of the patients (81%) were diagnosed at stage 3 collaborating with the epidemiological data[1] Stage 4 disease was presented only by postmenopausal women probably due to advanced age. Patients with stage 1 disease were half to the number of patients with stage 4 disease. This reflects that the population lacked awareness of the disease.

Treatment:

Treatment of breast cancer should be multi-dimensional and multi-disciplinary in nature and must be given based on the stage of the disease. In this study, majority of the patients irrespective of their stage of disease received adjuvant treatment in which surgery was complemented by either chemotherapy or radiotherapy or both. Adjuvant treatment was found very fruitful in both early and advanced breast cancer. In early breast cancer, it reduces the risk of local recurrence and in advanced breast cancer it delays locoregional recurrence, reduces growth of systemic metastasis and prolongs the life of the patient.

The surgical procedure used was MRM, Toilet mastectomy, MRM with b/l oophorectomy, WLE. Patient ignorance, absence of proper treatment units and poor follow-up are the main reasons for a low rate of breast conserving surgery.

Chemotherapy plays a major role in the treatment of breast cancer. Intensive use of chemotherapy is indicated 6 cycles in invasive breast cancer. In our unit, CAF was given for 6 cycles.

Hormonal therapy was given to patients after completion of treatment who turned up for FOLLOW UP which is very essential. It was found that hormonal therapy was not followed by some patients mainly due to financial problem.

Summary:

1. Among 122 female patients, 49 patients were premenopausal and 73 patients were postmenopausal.
2. In this study, the age at diagnosis ranged between 15 -85 years with mean age of 45.7years. More than half of patients (61%) were diagnosed between 45-55years. About 29% were aged younger than 45years and 10%were aged older than 55years at presentation.
3. Majority of the patients had duration of symptom of 2-6 months and presented stage III disease in premenopausal. Majority of patients had duration of symptom of 7-12 months and presented stage III disease.
4. The most common mode of presentation for both premenopausal and postmenopausal patient was lump (100%). Next common presentation was ulcer and skin changes.
5. The distribution of the lump was more over the upper outer quadrant for both premenopausal (62%) and postmenopausal (79%) patients compared to other quadrants.
6. The majority (49%) of the premenopausal patients had tumor between 2-5cm in diameter before medical seeking and majority of postmenopausal patients (53%) had tumor size more than 5cm.
7. The majority of the pre and post menopausal patients had infiltrating ductal carcinoma. Only two postmenopausal patient had lobular carcinoma in this study.
8. All patients underwent surgery and modified radical mastectomy, toilet mastectomy, modified radical mastectomy with bilateral oophorectomy, wide local excision was done to these patients. Overall 41 premenopausal and 57 postmenopausal patients were given adjuvant chemotherapy, 6 premenopausal and 13 postmenopausal patients were given neoadjuvant treatment. Three patients were given palliative treatment as they had advanced disease.

CONCLUSION:

Even though there has been a significant improvement in the management of the disease in the last few decades the effective cure of the disease requires reporting to the hospital in earlier stages of disease which was lacking in this locality. The study emphasizes the need of awareness and public education regarding carcinoma breast and its early detection for both premenopausal and postmenopausal women.

REFERENCES:

1. Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. Int J Cancer. 2010;127:2893–917. PubMed.
2. Bonnier P, Romain S, Charpin C, Lejeune C, Tubiana N, et al. (1995) Age as a prognostic factor in breast cancer: relationship to pathologic and biologic features. Int J Cancer 62: 138-144.
3. Fauci A, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscalzo J. 17th ed. New York: The McGraw-Hill Companies; 2008. Harrison's Principle's of Internal Medicine; pp. 516–22.
4. Gallucci BB. Selected concepts of cancer as a disease: From the Greeks to 1900. Oncol Nurs Forum.1985;12:67–71.
5. Kumar V, Abbas AK, Fausto N, Mitchell R. 8th ed. Philadelphia: Elsevier Saunders; 2007. Robbins Basic Pathology; pp. 173–224.
6. Adami HO, Malker B, Holmberg L, Persson I, Stone B (1986) The relation betweensurvival and age at diagnosis in breast cancer. N Engl J Med 315: 559-563.
7. Cauley JA, Gutai JP, Kuller LH, LeDonne D, Powell JG. The epidemiology of serum sex hormones in postmenopausal women. Am J Epidemiol 1989;129:1120-1131
8. Tretli S. Height and weight in relation to breast cancer morbidity and mortality: a prospective study of 570,000 women in Norway. Int J Cancer 1989;44:23-30
9. Lew EA, Garfinkel L. Variations in mortality by weight among 750,000 men and women. J Chronic Dis 1979;32:563-576
10. Lilienfeld AM. The relationship of cancer of the female breast to artificial menopause and marital status. Cancer 1956;9:927-934
11. Feinleib M. Breast cancer and artificial menopause: a cohort study. J Natl Cancer Inst1968;41:315-329
12. Rosner B, Colditz GA, Willett WC. Reproductive risk factors in a prospective study of breast cancer: the Nurses' Health Study. Am J Epidemiol 1994;139:819-82.