A clinico- demographic study of patients with carcinoma of breast at tertiary health care center

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Abstract
Introduction: Breast cancer is the second most common malignancy in India next only of carcinoma cervix, the lifetime risk of developed carcinoma breast in a female is 1 in 22 in urban Indian and 1 in 60 in rural India. **Aims and Objectives:** To study Clinico- Demographic Study of patients with Carcinoma of Breast at tertiary health care center. **Material and Methods:** After approval from Institutional ethical committee a cross-sectional study carried out in all Cases of Carcinoma of Breast that has undergone treatment from April 2012 to April 2014 at Department of General Surgery of CPR hospital attached to RCSM Government Medical college Kolhapur. In one year duration such a way 50 patients were selected. **Result:** In the case of Ca. Breast the findings were - youngest age at presentation in the present series was 25 years and the oldest was 70 years. The earliest age at onset of menarche in the present series was 11 years and late age of onset of menarche was 16 years. Mean number of pregnancies was 2.96.76% of the patients were pre-menopausal and 24% were post-menopausal. 80% of patients had breastfed their children, 4% did not breast feed and 16% were nulliparous. The mean time duration between additional self-detection of the disease and presenting to a physical was 6.04 months. Lump was the commonest mode of presentation mounting to 98% of cases. 36% of patients had carcinoma of right breast. 64% of patient had carcinoma of left breast. No patients had bilateral tumors. Upper outer quadrant was the commonest quadrant to be involved amounting to 56% of all cases. About 8% of patients presented with nipple discharge. 74% of patients presented with tumor when the size exceeded 5 cms**.**56% of patients presented with breast cancer in stage III of the disease and only a low 4% presented. **Conclusion:** It can be concluded from our study important associated factors with carcinoma of breast found were earliest age at onset of menarche, null parity, menopause and most common clinical feature found was lump in upper quadrant and majority of the diagnosed patient were in the third stage so all attempts should be made to diagnose the disease early stage
Keywords: Carcinoma of Breast, Menopause, WHO Stages of Ca. Breast.

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INTRODUCTION

Breast cancer is the second most common malignancy in India next only of carcinoma cervix,[1] the lifetime risk of developed carcinoma breast in a female is 1 in 22 in urban Indian and 1 in 60 in rural india.[2]

Estimated number (thousand)	Cases	Deaths	5-year prevalence
World	1671	522	6232
United states of America	233	44	971
China	187	48	697
India	145	70	397
European union(EU-28)	362	92	1444

Breast cancer is a disease of the old age with the peak incidence in the fifth and sixth decades, but in India diseases is seen a decade earlier, probably because of shorts life expectancy in Indian women (About 65.3 years as per Indian in 2005) as compared to counterparts in USA.[3] The risk factors for breast cancer in western population have been extensively investigated, and it has

been suggested that reproductive and life-style related factors are strongly associated with increased risk for breast cancer.[3,4] various risk assessment models such as gail, clause, BRACPRO have been developed and validated in white women.[5,6,7] they are used to recruit women for breast cancer screening protocols. However race/ethnic difference exist in both prevalence as well as risk countries have studied risk factor profile of their populations and developed their own risk assessment protocols.[8,9] several reproductive risk factors have been identified and evaluated. Early menarche, late menopause, nulliparity, late age of childbirth is risk factors, whereas multiple and breast feeding offers protection against breast cancer, most of these studies were conducted in first world countries.[10] In these first world countries, the majority of breast cancer diagnosis is following screening, in developing countries, patients have limited access OT screening, or any effective awareness program and consequently advance disease. The delay in the presentation of this disease is also because of presence of painless lump which is likely to be neglected by the patients. Mass education and self-examination goes a long way in the early diagnosis and treatment of cancer. Many early breast carcinomas are asymptomatic; pain or discomfort is not usually a symptoms of breast cancer, breast cancer is other first detected as an abnormality on a mammogram before it is felt by the patients or healthcare provider.

MATERIAL AND METHODS

After approval from Institutional ethical committee a cross-sectional study carried out in all Cases of Carcinoma of Breast that has undergone treatment from April 2012 to April 2014 at Department of General Surgery of CPR hospital attached to RCSM Government Medical college Kolhapur. All the patients after written and informed consent were admitted to wards, diagnosis of carcinoma of breast was made on the basishistory, clinical and pathological findings. Malignancy was confirmed by pre-operatively and biopsy and Post-operative histopathological features were classified as benign or malignant based on 2003 World Health Organization classification of tumors of breast. All histopathologically proven cases of carcinoma of breast were included while patients lost to follow up , patient does not given consent for treatment and to be part of study, and patient operated outside and having local regional or systemic recurrence were excluded from the study. In one year duration such a way 50 patients were selected.

RESULT

Table 1: Age distribution

Age Group(in year)	Number of patients	Percentage
20-30	4	8
31-40	18	26
41-50	12	24
51-60	12	24
61 and above	4	8
Total	50	10

The youngest age at presentation in the present series was 25 years and the oldest was 70 years. The peak age group of individuals with carcinoma breast was in third to fourth decade, 84% of patients were distributed in 30±10 years range. The mean age at presentation was 46.26years.

Table 2: Age at menarche

Age Group(in years)	Number of patients	Percentage
11	6	12
12	18	36
13	16	32
14	4	8
15	4	8
16	2	4
Total	50	100

The earliest age at onset of menarche in the present series was 11 years and late age of onset of menarche was 16 years. 48% of cases had onset of menarche before 12 years and the remaining 52% had onset after 12 years. Median age of onset was 13 years.

Table 3: Number of pregnancies

Numberof pregnancies	Number of patients	Percentage
1-4	28	56
5-8	10	20
9 and above	2	4
Nulliparous	8	16
Total	50	100

The maximum number of time any patients became pregnant was 10. Mean number of pregnancies was 2.96. number of nulliparous women were 8.

Table 4: Age at menopause

Age (in years)	Number of patients	Percentage
40-44	2	16.67
45-49	7	58.33
50+	3	25
Total	12	100

Of the 50 cases, 12 had attained menopause. Two had attained before 44 years, 7 between 45-49 years and 3 after 50 years,

Table 5: Menopausal status

Menstrual status	Number of patients	Percentage
Pre-menopausal	38	76
Post-menopausal	12	24
Total	50	100

76% of the patients were pre-menopausal and 24% were post-menopausal.

Table 6: Distribution of the patients as per Breast feeding

Breast feeding	Number of patients	Percentage
Breast fed	40	80
Not fed	2	4
Nulliparous	8	16
Total	**50**	**100**

80% of patients had suckled their children, 4% did not breast feed and 16% were nulliparous.

Table 7: Duration of illness

Duration (in months)	Number of patients	Percentage
0-3	10	20
4-6	25	50
7-9	8	16
10-12	5	10
>12	2	4
Total	**50**	**100**

The mean time duration between additional self-detection of the disease and presenting to a physical was 6.04 months. The maximum time duration was 24 months and minimum time duration was 1 month. 20% of patients presented within 3 months but a significant 50% present between 4 to 6 months of self-detection of disease. About 4 per cent presented one years after the detection of disease.

Table 8: Presenting symptoms

Symptoms	Number of patients	Percentage
Lump	49	98
Pain	6	12
Nipple discharge	4	8
Ulcer	8	16

Lump was the commonest mode of presentation mounting to 98% of cases. One patients did not have any lump, but complained of scaling and itching of nipple with serous discharge from nipple. Breast pain was present in 12% of patients. Nipple discharge was present in 8% of patients.

Table 9: Distribution of the patients as per Side and incidence

Side	Number of patients	Percentage
Right	18	36
Left	32	64
Bilateral	Nil	Nil
Total	**50**	**100**

36% of patients had carcinoma of right breast. 64% of patient had carcinoma of left breast. No patients had bilateral tumours.

Table 10: Distribution of the patients as per Site and incidence

Quadrant	Number of patients	Percentage
Upper outer	28	56
Upper inner	6	12
Lower outer	2	4
Lower inner	2	4
Difuse central	12	24
Total	**50**	**100**

Upper outer quadrant was the commonest quadrant to be involved amounting to 56% of all cases. Lower quadrants were involved in 8% of cases. Central quadrant in 24% and upper inner in 12% of cases.

Table 11: Nipple discharge

Type of discharge	Number of patients	Percentage
Serous type	3	6
Blood stained	1	2
Nil	46	92
Total	**50**	**100**

About 8% of patients presented with nipple discharge. Three patients (6%) had serous type of and one patients (2%) had blood stained discharge.

Table 12: Distribution of the patients as per Size of tumour

Size(in cms)	Number of patients	Percentage
<2	3	6
2-5	10	20
6-10	34	68
>10	3	6
Total	**50**	**100**

74% of patients presented with tumour when the size exceeded 5 cms and 6% of patients had size of more than 10 cms. Maximum size of the tumour was 20cms.

Table 13: Stage of disease at diagnosis

Stage	Number of patients	Percentage
Paget's disease	1	2
I	2	4
II	7	14
III	28	56
IV	12	24
Total	**50**	**100**

56% of patients presented with breast cancer in stage III of the disease and only a low 4% presented in stage l, 24% of patients had metastases at the time of presentation. One patients had paget's diseases percentage of patients presenting with early breast carcinoma was 18% and locally advanced was 56%.

DISCUSSION

Inherited predisposition to breast cancer[11,12]. When a woman has as mutation in either of the two tumor suppressor genes BRCA I and BRCA II, she faces a markedly increased lifetime risk of developing breast cancer. Mutations in BRCA I are associated with a 50% to 85% risk of developing breast cancer during a women's lifetime, with a particularly striking predisposition to early onset breast cancer. Breast cancer is also observed as a part of other familial syndromes including LI-Fraumeni syndrome, Cowden syndrome, Muir syndrome and ataxiatelangiectasia. Exposure to non ionizing radiation, either secondary to nuclear explosion or medical diagnostic and therapeutic procedures

increases breast cancer risk. A markedly increased risk of breast cancer is reported in women who received months irradiation for the treatment of hodgkin's disease before age 15.[14] The estrogen receptor (ER) and progesterone receptor (PR) proteins are the most widely studied Steroid hormone receptors. The breast a subcutaneous structure located over the anterior chest wall is a common cause for morbidity in females, though it is easily accessible for any changes in the consistence and contour, patients usually present late in the course of the disease. In our study we have found. Carcinoma breast is more common after the age of 30 years. The youngest patients in the present series was 25 years and oldest 70 years. The average age was 46.2 years and the maximum number of patients was seen in the age group 31-50 years. It seems reasonable to infer that at a given perimenarcheal age, estrogen levels would be higher in women who have started to menstruate than in those who have not and indeed there is evidence to this effect. Earlier age at menarche has been consistently associated with increased risk of breast cancer. The data presented in our present series suggests that women with early menarche continue to have higher estrogen excretion (and presumably production). 48% of patients had menarche earlier than 12 years of age. Between 13 and 16 years, 52% of breast cancer patients had their menarche. in a study be DS sandhu 92.9% of the breast cancer patients had their menarche between the ages of 13 and 16, supporting the fact that risk is higher with early onset of menarche [15]. although menarche is most clearly related to the onset of ovulation, but not all studies suggest that hormone levels may be higher through the reproductive years among women who have early menarche. Age at Menopause: Of the 50 patients in the present series, 12 had attained menopause and 38 were pre-menarche In 1948, clemmesen described a statistically significant decline in the rate of brest cancer incidence curve among women aged 50 to 55 years and suggested that their phenomenon was related to some hormonal, possibly ovarian change occurring with menopause. In the present series, lump in the breast was the chief presenting complaint in a majority of the patients (98%), as reported in various studies,[16,17] in DS sandhu's study, lump in the breast was the chief presenting complaint in 87.9% patients. The incidence of breast carcinoma was more on the left side in the upper outer quadrant corroborating with the previous reports.[75] the possible explanations are that the left is bulkier and the upper outer quadrant has a relatively larger volume of breast tissue.[18] Also we have found that Upper outer quadrant was the commonest quadrant to be involved amounting to 56% of all cases. Lower quadrants were involved in 8% of cases. Central quadrant in 24% and upper inner in 12% of cases. About 8% of patients

presented with nipple discharge. Three patients (6%) had serous type of and one patients (2%) had blood stained discharge. 74% of patients presented with tumour when the size exceeded 5 cms and 6% of patients had size of more than 10 cms. Maximum size of the tumour was 20cms. 56% of patients presented with breast cancer in stage III of the disease and only a low 4% presented in stage l, 24% of patients had metastases at the time of presentation. One patients had paget's diseases percentage of patients presenting with early breast carcinoma was 18% and locally advanced was 56%. These findings are similar to Symour I[18]

CONCLUSION

It can be concluded from our study important associated factors with carcinoma of breast found were earliest age at onset of menarche, null parity, menopause and most common clinical feature found was lump in upper quadrant and majority of the diagnosed patient were in the third stage so all attempts should be made to diagnose the disease early stage

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