



PROFILE OF BREAST CANCER PATIENTS ATTENDING A DISTRICT LEVEL CANCER HOSPITAL, SOUTH INDIA: A CROSS-SECTIONAL STUDY.

Community Medicine

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ABSTRACT

Background: Among females breast cancer is the most commonly diagnosed cancer and the leading cause of cancer deaths. According to ICMR statistics, in India, the prevalence of cancer is estimated to be 3.9 million and reported incidence to be 1.1 million. Incidence wise carcinoma breast is the second most common cancer in India which was at a fourth place in 1990.

Objectives: To study the socio-demographic and epidemiological profiles of breast cancer patients attending a district level cancer hospital. **Methodology:** This is a hospital based, cross-sectional descriptive study done for a period of six months. All the breast cancer patients attending the hospital for surgery, chemotherapy or radio therapy and who were willing to participate in the study were included as study subjects. A total of 102 patients were studied.

Results: 68.7% of the study subjects were in the 41-60 years age group. 77% of them were either illiterates or had primary schooling. Majority (91%) of the study subjects belonged to Lower and poor class. 9% of the subjects reported a family history of breast cancer 93% of the study subjects were on a mixed diet, 16.7% reported using tobacco and 35% led a sedentary life.

KEYWORDS

Profile, carcinoma breast, risk factors

INTRODUCTION:

Cancers are defined as group of heterogeneous disorders characterized by clonality, autonomy, anaplasia and metastasis¹. In 2018 the global burden of cancers rose to an estimated 18 million new cases with 9.55 million deaths. Among females breast cancer is the most commonly diagnosed cancer and the leading cause of cancer deaths. Few decades ago cancer was the sixth leading cause of death in industrialised countries. Today it has become the second leading cause of death, reasons being longer life expectancy, more accurate diagnosis and rise in cigarette smoking. According to ICMR statistics, in India, the prevalence of cancer is estimated to be 3.9 million and reported incidence to be 1.1 million. Cancer accounted for 9% of all deaths in 2016, double that of 1990.² Incidence wise carcinoma breast is the second most common cancer in India which was at a fourth place in 1990.³ One in fifteen men and one in twelve women in the urban areas could develop cancer in their lifetime. In urban females there are 92.2-135.3 cancer cases per lakh population and in rural areas it was 57.7 cancer cases per lakh population. (age adjusted incidence rates).⁴ The five most common cancers in females in India are carcinoma breast, cervix uteri, colo-rectum, ovary, lip and oral cavity. It was noted that breast cancer is on rise surpassing cervical cancer and it is related to late marriage, birth of first child at late age, fewer children and shorter duration of breast feeding.⁵

Objective:

To study the socio-demographic and epidemiologic profiles of breast cancer patients attending a district level cancer hospital.

METHODOLOGY:

This is a hospital based, cross-sectional descriptive study done for a period of six months (Jan 2019- June 2019). Institutional Ethical Committee approval was taken and permission was obtained from the Administration of the District Cancer Hospital. Informed Oral consent was obtained from the study subjects. Convenient sampling method was chosen to select the study subjects. All the breast cancer patients attending the hospital for surgery, chemotherapy or radio therapy and who were willing to participate in the study were included as study subjects. Patients who were critically ill and who denied to give consent were excluded from the study. Thus a total of 102 patients were studied. A pre-designed, pre tested semi-structured questionnaire which obtained data regarding variables like age, socio-economic status (SES), family history, parity, age at menarche, first child birth, menopause, abortions, usage of oral pills, diet, physical activity, habits etc., was administered to the subjects. Data collected was entered in

MS-Excel and analyzed using SPSS 22.0 version. Proportions and percentages for qualitative data and means and standard deviation for continuous data were calculated.

RESULTS:

The following tables and figures show the socio-demographic profile and risk factors of the study subjects.

Table1: Demographic profile of the study subjects (n=102)

Variable	Frequency	Percentage
Age Group in years		
21-30yrs	4	3.9
31-40yrs	14	13.7
41-50 yrs	43	42.2
51-60	27	26.5
>60	14	13.7
Residential Area		
Urban	36	35.3
Rural	66	64.7
Religion		
Hindu	78	76.5
Muslim	17	16.7
Christian	7	6.9
Caste Groups		
OC	25	24.5
BC	51	50.0
SC	21	20.6
ST	5	4.9
Occupation		
Working	56	54.9
Home maker	46	45.1

Table2: Distribution of study subjects according to social factors (102)

Variable	Frequency	Percentage
Education		
Illiterate	57	55.9
Primary	22	21.6
Secondary	6	5.9
High School	9	8.8
Inter/Diploma	2	2.0

Graduate	4	3.9
Post-Graduate	2	2.0
Socio-economic Status(Modified B.G.Prasad's)		
I	2	2.0
II	3	2.9
III	4	3.9
IV	16	15.7
V	77	75.5

Table3: Distribution of subjects according to risk factors (n=102)

Variable	Frequency	Percentage
Parity		
Nulliparous	10	9.8
1-2 children	49	48
Multiparous	43	42.2
Breast feeding (n=92)		
Yes	90	97.8
No	2	2.2
Children Breastfed (n= 92)		
None	2	2.2
One Child	13	14.1
2 or more children	77	83.7
Family H/o Breast Cancer		
Yes	9	8.8
No	93	91.2
H/o Abortions		
Yes	23	22.5
No	79	77.5
Mixed Diet		
No	7	6.9
Yes	95	93.1
Physical Activity		
Yes	66	64.7
No	36	35.3

Among the 102 study subject only one was unmarried. 59% (60)of the present subjects attained menopause including those who underwent hysterectomy. 16.7% (17) of the subjects gave a history of using tobacco. 40% (41)of the study subjects had one or other co-morbid conditions.

Table4: Descriptive statistics of certain variables of the study subjects

Variable	Mean ± SD
Age	49.48±10.8 years
Age at menarche	13.27±1.34 years
Age at marriage	17±3.75 years
Age at 1 st child birth	17.53±6.86 years
Duration of breast feeding	4.5± 3.17 years
BMI	25.65±5

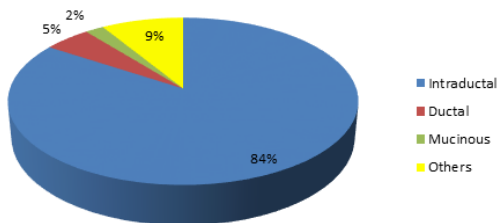


Fig1: Distribution of study subjects according to histo-pathology

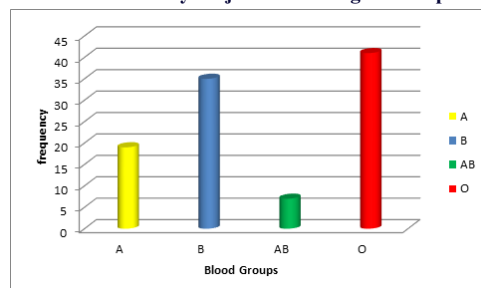


Fig.2: Distribution of study subjects according to blood groups

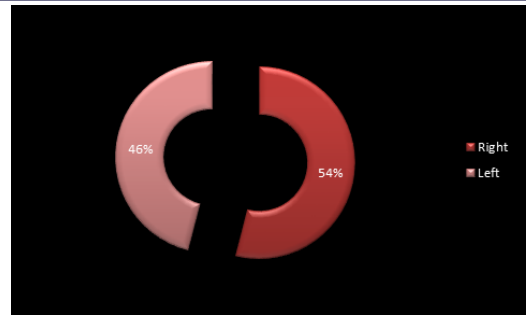


Fig.3: Distribution of study subjects according to side involved

DISCUSSION:

In the present study the mean age of the subjects is 49.48±10 years. Other studies reported a mean age of subjects as 54.24 years, 52.6 years and 47.14 years respectively.^{6,7,8} 40.4% of the study subjects were in 41-50 years age group followed by 21% in 51-60 year age group. Almost 13.5% were above the age of 60 years maximum age being 76 years. In a study in Dharwad, Karnataka⁹ 58% were in the age group of 40-60 years which is similar to our study. The mean age of menarche of the study subjects in the present study is 13.27±1.34 years. In a study done in Marathwada region⁷ it was reported as 11.32±1.7 years and in a study conducted in Delhi⁸ it was 14 years.

76.5% of the present study subjects were Hindus and 16.7% were muslims. Similar findings were observed in the study done at Delhi.⁸ 45% of study subjects in our study were home makers while in a study done at Dharwad⁹ it was 49.4%. 91% of subjects in the present study belonged to social class IV and V (B.G.Prasad) where as in the Dharwad study⁹ 86.4% belonged to Class I and II of (B.G.Prasad). This difference is mainly due to study setting of the present study. It was done Indian Red-Cross Hospital which caters to the poor.

In our study the mean age at first child birth was 17.53±6.86 years. It was a bit higher in the Marathwada and Delhi studies^{7,8} where it was reported 18.6±4.2 years and 19.76 years. This difference may be due to the fact Delhi being a metropolitan city and age at marriage and child birth will be higher than other areas.

In the present study, mean duration of breast feeding was 4.5±3.17 years. In a study by Arifa Almas¹⁰ it was reported as 5.5 years which was higher than our study and 6.58 years in a study by Pakserashi¹¹.

The mean BMI of study subjects in the present study is 25.65±5 kg/m2, where as it was reported as 22.8kg/m2 in a study done by Navneeth Kaur⁸ and 26.45±3.21 kg/m2 in the Marathwada study⁷ which was similar to our study stating that the subjects were obese.

In our study only 9% of the subjects reported a family history of breast cancer. A similar finding was observed in a study at Dharwad⁹ where it was 8.6% and 5% in a study done in Nigeria¹².

58% of study subjects in the present study attained menopause. In another study at Nigeria¹² it was 47.5% and this difference may be due to different study setting.

22.5% of the subjects in the present study gave history of abortions. In a study by Navneeth Kaur⁸ at Delhi it was reported to be 50%.

81% of our study subjects are multi-parous, whereas it was found to 96.64% in a study done by Jitendra Singh Nigam¹³ and 75% in a study by WaniSQ in Kashmir¹⁴.

In the present study 84.3% had intra ductal carcinoma and 2% had mucinous carcinoma and this was in concordance with a study done by Jitendra Singh Nigam¹³ and Ambikavathy Mohan⁶. In our study 54% of the cancer was on the right side and 46% on the left. In a study done in Nigeria¹² it was 57.3% on right side and 42.7% on the leftside. In another study done by Jitendra Singh Nigam¹³ it was almost equal on both sides.

CONCLUSIONS:

68.7% of the study subjects were in the 41-60 years age group. 77% of them were either illiterates or had primary schooling. 45% were home makers. Majority (91%) of the study subjects belonged to Lower and

poor class. 9% of the subjects reported a family history of breast cancer and 22.5% gave a history of abortions. 93% of the study subjects were on a mixed diet, 16.7% reported using tobacco and 35% led a sedentary life. Among the study subjects 10% were nulliparous and 9% had a single child. 2% of the subjects didn't breast feed their children while 14% fed only one child. The mean duration of breast feeding was 4.5 ± 3.17 years. In the present study it was observed that most common breast involved was the right breast. Majority (84.3%) of the cancers were invasive ductal carcinoma and 40% of the study subjects had comorbid conditions. Most of the risk factors for cancers in general are primarily a reflection of unhealthy lifestyles and are therefore potentially preventable.

Recommendations:

1. Breast Self Examination is the most important screening method every woman can practice which helps in the early diagnosis of carcinoma breast. Therefore health education is the only strong weapon which can re-inforce this practice. This health education should be targeted at all females.
2. All the females with a family history of carcinoma breast are strongly advised to have a periodical screening for carcinoma breast.
3. In the present study it was noted that females who had two or more children and who breast fed their children for longer duration also had carcinoma breast. So further studies are needed to see whether other factors like environment, exposure to radiation other than medical reasons are playing a role in the etiology of carcinoma breast.

Limitations:

The biggest limitation to this study is that it was done in Indian Red Cross Cancer Hospital and therefore most of the study subjects were from the lower strata of social class. Very few subjects are from the higher strata and this could lead to some bias in our study.

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