

Breast Cancer- Rising Trend in Young!

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Abstract Introduction: Incidence of breast cancer is less common, more aggressive and has poor prognosis in the young when compared to the older population. Rising incidence in younger population now a days is due to modified life style, modernization in a true sense and even due to increased awareness and screening which detects the disease at an earlier stage. **Materials:** This is retrospective study including 139 patients of breast cancer from June 2014 to June 2015 in a single institute, the Krishna Institute of Medical Sciences, Secunderabad. **Results:** Out of 139 patients, 41 pts were below 40 yrs of age and around 60% of them were detected at stage II and around 30% were in stage III. Most of the patients had laterality towards right, different from the other studies Anders et al. **Conclusion:** Incidence of breast cancer in <40yrs of age constituted around 20% of all breast cancers which was significantly higher than those in other studies. Increased awareness and better screening facilities have improved the detection in an earlier stage than before.

Keywords: breast cancer, younger population, modernization

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treated which demands further increase in awareness and screening facilities.

1. Introduction

Breast cancer is the most common cancer of adult females all over the world after lung cancer and the second leading cause of cancer death [1]. Presently, 75,000 new cases occur in Indian women every year [2]. This figure must be viewed against the backdrop that the National Cancer Registry and the Hospital-based Tumour Registries hardly sample 3% of the total population [3]. Breast cancer is more rampant in the western countries, but the numbers are rising in the Asian countries as well, probably due to improved screening techniques. In India, the probability of developing breast cancer during a lifetime is 1 in 22 compared to 1 in 8 in the US [4]. A majority of the studies show a high prevalence in the fourth and the sixth decades, the incidence of which is changing in the recent times [3].

Incidence of breast cancer is less common, more aggressive and has poor prognosis in the young when compared to the older population. Rising incidence in younger population now a days is due to modified life style and modernization in a true sense and even due to increased awareness and screening which detects the disease at an earlier stage. Various camps have been held in both urban as well as rural India in the recent years, thus, increasing awareness and providing access to the health care facilities which should be intensified further for better outcome.

Aim of our study is to show the increasing trend of incidence of breast cancer in the young. Due to its aggressive behaviour it should be detected earlier and

2. Methods and Materials

This is a retrospective study over one year and one month between June 2014 to July 2015 at Krishna institute of medical sciences, Secunderabad. A total of 139 patients of breast cancer were analyzed. All age groups were included with emphasis on young population of <40 yrs of age. All stages are included in the study. Diagnosis of breast cancer was based on clinical examination, imaging and histopathology. Statistical analysis was done using a paired T test.

3. Results

Variables such as age, laterality, stage of presentation and pathology were considered in the study with emphasis on age. Out of 139 pts included in the study 37(26.6%) were <40yrs of age and majority among them being between the ages of 30 & 40. The youngest patient was 22yrs of age and the oldest being 81yrs. There were no male patients in our study of 139 patients.

Out of 139 patients 81(58.2%) and out of 37 patients who are <40yrs 21(56.7%) presented with right sided tumour and 1(0.7%) patient had bilateral tumour in our study which is quite different from other studies which show a predominance of left sidedness.

In our study, majority of the patients of <40yrs presented with stage II(56.75%), stage III being the next

common (29.7%), followed by stage I(10.8%) and stage IV(2.7%).

Patients underwent the procedures of modified radical mastectomy, excision biopsy followed by completion mastectomy, chemoradiation. Breast conservative surgery (BCS) is being most commonly practiced in the west. Although we do have the expertise and radiation facilities at our centre, it hasn't been practiced to an extent due to patients choice of mastectomy, lack of follow up and preference for radiation post surgery which would defeat the purpose.

In our study, Invasive ductal carcinoma(IDC) is the most commonly encountered histopathology in the whole population(77.6%) as well as in <40yrs(89.1%) age group followed by Ductal carcinoma insitu. 68% of them presented with grade 3 disease followed by grade 2.

4. Discussion

Breast cancer is now the most common cancer of women in most urbans in India, and the 2nd most common in the rural areas [5]. Incidence of developing breast cancer in young population is less common, Anders et al. [6] reported a relative incidence of 2.4% diagnosed before age 35 and 1% before age 30. In India, the average age of developing breast cancer has undergone a significant shift over the last few decades. Mohanti et al. showed 5.5% of incidence below 35 yrs of age [7]. Umesh das et al. [8] showed a relative incidence of 11.3% of breast cancer below 35yrs of age. Although the number of case in our study is small, our data showed a relative incidence of 26.6% of patients under the age group of 40. 25yrs back, out of every 100 breast cancer patients, 2% were in 20 to 30yrs age group, 7% were in 30 to 40yrs, 69% were above 50yrs of age [5]. In our study, increasing number of patients fall between the age group of 30-40 yrs of age. This shows that there is a relative increase in incidence in the younger population in contrast to that of earlier trend.

Risk factors of breast cancer which are well established are age, ethnicity, family history, age of menarche, age of menopause, parity. Life style modifications of later age of marriage, reduced breast feeding and westernization of the diet, is probably associated with the increase incidence of breast cancers in the young.

Women are more likely to develop left sided breast cancers than the right, reason being still unclear. Our study shows a predominance of right sided breast cancers which is in contrast to many other studies. Study on breast laterality by Anders Ekbohm et al [9], shows the overall incidence was higher in the left than the right in >45yrs of age. Among the young women, nulliparity, right handedness, and late age of menarche was associated with a somewhat higher incidence of cancer in the right breast, Anders et al.

Breast cancer shows huge inequalities among the rich and the poor countries. Though incidence of breast cancer is highest in the developed countries, mortality rates are more in the developing ones. This clearly points towards the lack of awareness and access to health care facilities among the developing countries apart from modified life style [10]. In our study, most of the patients presented

with Stage II followed by stage III disease, which shows an increase in awareness and early screening facilities made available to the general population by conducting various health camps. Thus, better education and screening improves the identification of the disease at an earlier stage, which increases the overall survival of the patient.

Cancers in the young, tend to be more aggressive. Many of these cancers are ER/PR negative and HER2 positive or all three negative which is a poor prognostic indicator than those who have ER/PR positive. Young age has been associated with very large tumor size, higher number of metastatic lymph nodes, poorer tumor grade, low rates of hormone receptor positive status, earlier and more frequent locoregional recurrences, and poorer overall survival [11,12]. Therefore, these tumours have to be detected earlier in order to prolong the survival. Histopathological evaluation showed that most young breast cancer patients have IDC, other studies like Walker et al. also reported similar findings [13].

5. Conclusions

Our study shows the increasing trend of breast cancer in the younger population, reason being either modified life style or westernization. A majority of them presented with earlier stage than before which could be due to increasing awareness, improved screening methods and literacy rates in the recent past.

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