To Study The Incidence Of Carcinoma Breast In Patients Presenting With Palpable Lump Breast

[1]Dr. Gunjeet Singh Sandhu, [2]Dr. Anand Singla, [3]Dr. Sanjeev Gupta, [4]Dr. Karamjot Singh Sandhu, [5]Dr. Sahil Heer

(Surgery), [1,2]Assistant Professor, [3]Associate Professor, [4]Senior Resident, [5]Junior Resident, GMC, Patiala, Punjab

*Corresponding Author:
Dr. Anand Singla
Assistant Professor, Surgery, GMC, Patiala, Punjab

Abstract

Introduction: Incidence of carcinoma breast is increasing over the decades, especially in Indian women due to increased westernization, making this issue a topic of concern.

Methods: This hospital based study was carried out in Government Medical College, Patiala, India. All females, of any age group presenting with lump breast, not a known case of carcinoma were included in the study

Results: Out of the 210 patients examined, incidence of carcinoma breast in patients presenting with palpable lump came out to be 27.5

Conclusion: A low mortality rate and an increased five year survival rate depends on an early presentation of all patients diagnosed with carcinoma breast, hence, self breast examination and screening will lead the way

Keywords: Breast neoplasm, breast self examination, early detection of cancer

Introduction

Cancer of breast is a disease that instills the feeling of dread and fear in many women. Not only is it a life-threatening disease, but it affects a part of the body that is central to lady's sense of womanliness and femininity.

Breast tumors can be benign or malignant. Aberrations in the normal development and involution of the breast describes most of the benign breast diseases. They are relatively minor aberrations of the normal processes of development, cyclical hormonal response and involution.

Most detected breast masses are benign, but every woman, presenting with a breast mass should be evaluated to exclude or establish a diagnosis of cancer.[1].

Incidence of carcinoma breast is increasing over the decades, especially in Indian women due to increased westernization, making this issue a topic of concern.

Aims And Objectives

The aim of this study was to diagnose, benign or malignant disease in a case of palpable lump breast in females and to evaluate the incidence of carcinoma breast in patients presenting with palpable lump breast in Rajindra Hospital, Patiala.

Material And Methods

This hospital based study was carried out in Government Medical College, Patiala, India. All females, of any age group presenting with lump breast, not a known case of carcinoma were included in the study. A total of 210 patients were enrolled for the study in a period of 1 year. Diagnosis was made as per the Triple assessment, which included clinical

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assessment, imaging studies (carried out in all the patients presenting with palpable lump) and tissue studies such as fine needle aspiration cytology, core needle biopsy, excisional biopsy or incisional biopsy in all patients with palpable lump.

Patients presenting with palpable lump were categorized into benign and malignant diseases on the basis of triple assessment. The data was analyzed and the incidence of carcinoma breast in the patients was calculated.

Observations And Results

A total of 210 patients were enrolled in the study as sample population. After the clinical assessment, radiological imaging and tissue imaging investigation were done to reach at the final diagnosis.

Out of the 210 patients examined, incidence of carcinoma breast in patients presenting with palpable lump came out to be 27.5 (58 patients out of the 210 had carcinoma breast). Most common disease among the study group came out to be fibroadenomas (incidence 35.7, 75 patients out of 210).(Table 1)

Stage of the disease and etiological factors were studied in the patients with palpable lump, in whom the tissue diagnosis was found to be malignant. Age is one of the most important non-modifiable risk factor for carcinoma breast. Patients with age between 20 years to 80 years were included in our study group.Majority of patients of carcinoma breast 47 (81 %) were less than 60 years of age, out of which, 33 (57%) of patients were less than 50 years of age (younger population). (Table 2)

Carcinoma breast patients were further assessed for menopausal status. 23 patients (39.6%) were premenopausal, 29 patients (50%) were postmenopausal and rest (6 patients, 10.4%) were perimenopausal.

2 (3.5%) patients with carcinoma breast were unmarried and 56 (96.5%) of the patients with carcinoma breast were married. Family history was present only in 3 (5%) patients of the carcinoma patients.

In 44 (76%) patients of carcinoma breast, the lump was fixed. Nipple/skin changes were present only in 14 (24%) patients of carcinoma breast. Majority of patients, i.e. 32(55%) presented to the hospital in late stages of carcinoma breast (stage 3 & 4), while 26

(45%) patients presented in early stages of carcinoma breast (stage 1 & 2).

Discussion

Cancer continues to be one of the most dominant health problem. The current data indicates the increasing importance of the subject.

Incidence of carcinoma breast in our study came out to be 27.5, against the national incidence of 22.9.[2] Thus it is clear that incidence of carcinoma breast in India is increasing and it is an alarming situation.

The rates are varying probably due to local-regional factors and genetic factors, as indicated by the study done by Siroclinpharm according to which, the incidence rates in India varies from 6.2 to 39.5 in different regions of the country.[3] In metropolitan cities, incidence is higher, nearly three times, compared to rural india. In Bangalore, Chennai, Delhi, Mumbai and Kolkata, the age-adjusted incidence rates are 30.9, 33.0, 31.4, 29.3 and 20.6 per 100,000 while the rates are much lower in rural areas like Barshi and rural parts of Ahmedabad district (9.4 and 9.2 per 100,000). In Chandigarh, it is as high as 39.5 [4]

In India, incidence rates are increasing over the time. Breast cancer is like a potential epidemic which may present over the next decade. The reasons mainly being the influence of western lifestyle, as women are marrying and bearing children later in life, nursing fewer children and weaning them earlier, and altering hormone flows. Studies indicate that as India is becoming westernized, the incidence rate for breast cancer is increasing. Incidence rates in western countries at present are 3 times more (66.4).[5]

As per the age wise distribution of carcinoma breast in our study, 47 (81%) patients of carcinoma breast were under the age of 60 years. This is comparable with study done by Chopra R, according to which eighty percent of Indian women with breast cancers were below 65 years of age.[6]

In our study, 40-50 years age group had the maximum incidence of carcinoma breast reaching upto 21 (36%). Incidence of carcinoma in younger population is also increasing. 12 (21%) females were under the age of 40 years (early onset disease). Siroclinpharm study about the trends in india also states that majority of patients fall in 40 to 50 years

of age, while a significant proportion of Indian breast cancer patients are younger than 35 years (3) Same is also supported by Pink Indian statistics.[7] Also, a study by Leong SP et al states that the peak age is between 40 and 50 years in Asian countries, but is between 60 and 70 years in Western countries.[8]

In the present study, 23 (40%) patients having carcinoma breast, were premenopausal and 6 (10%) patients with carcinoma breast, were perimenopausal. Thus the incidence is increasing among the premenopausal women. Siroclinpharm study shows that in western countries, the majority of breast cancer patients are postmenopausal in their 60s and 70s while in India, the picture is quite different with pre-menopausal and perimenopausal patients constitute about 29 (50%) of all patients with carcinoma breast.[3]

As evident in study by Kakarala et al, carcinoma breast in younger patients is associated with higher proportion of high-grade and hormone receptor-negative tumors and more resistant to treatment.[9] Majority of diagnosed carcinoma breast patients in our study were of younger age (<50 years) and premenopausal status which is a cause of concern.

Family history was present only in 5% (3 patients) of the cases as per the present study. These results are comparable with Siroclimpharm study (3), but the family history varies, reaching upto 20%, in different populations as seen in study by Agarwal et al.[10]

Though the incidence of carcinoma breast is increasing, the more problematic issue is that, majority of the cases present to hospital in late stages of the disease. This increase can be related to increasing trend of western practices among the Indian population i.e., late age of marriages, late child bearing, less breast feeding, use of hormone replacement therapy at menopause, increased use of alcohol, decreased physical activity, increased western diet and increased use of various agents/practices in food, which may be carcinogenic. Genetic factors also play important role.

This leads to poor prognosis and increased mortality among the Indian population. In our study, 55% (32 out of 58 patients) presented in late stages (stage 3 & 4). Reasons behind the late presentation are lack of awareness, poor knowledge of breast self examination, financial constraints among the patients

or less developed screening facilities in the country. As in case of noticeable breast lumps which are painless or not causing any troublesome symptoms, patients refrain from visiting a doctor for its diagnosis. Thus the treatment is delayed substantially. Non availability of adequate diagnostic facilities at the local/peripheral health care centers act as a deterrent from seeking timely advice of a specialized health care practitioner.[10]

As per study by Pink Indian statistics, the most important reason for poor five year survival rate in Indian population being lack of awareness about breast cancer and screening of the same; more than 50% patients of breast cancer present in stages 3 and 4, and outcome is not as good as earlier stages, however aggressive the treatment may be. In the West, majority of breast cancers (more than 75%) present in stages 1 and 2, resulting in good survival; and there is an ever increasing numbers of patients presenting with mammography detected cancer, with no symptoms.[7] As per Siroclinpharm study, majority of patients presented in late stages; Stage I: 1–8%; Stage II: 23–58%; Stage III: 29–52%; Stage IV: 6–24%.[3]

In India, the incidence rate for breast cancer is 22.9 per 100,000, which is one-third (66.4) of that in Western countries. In contrast, the mortality rates are disproportionately higher in India(11.1) as compared to that in western countries(15.3).[11,12] This can be explained on the basis of delayed presentation of Indian carcinoma patients to the hospital with late stages of the disease.

Conclusion

Incidence of carcinoma breast in patients presenting with palpable lump coming to Govt. Medical College and Rajindra Hospital Patiala is 27.6 per 100 females, as per the present study. Incidence of carcinoma breast is increasing, especially in younger population, and it has attained an alarming situation. Early steps are needed to overcome this epidemic of the future and to reduce the relatively high mortality rate from carcinoma breast.

This could be done by bringing better awareness among the population regarding the disease, breast self examination and increasing the number of screening programs in the country to detect early disease and good quality treatment at affordable

costs. A low mortality rate and an increased five year survival rate depends on an early presentation of all patients diagnosed with carcinoma breast, hence, regular self breast examination and thorough screening will lead the way.

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Table 1. Incidence of diseases of the breast in the female patients presenting with lump breast

Diseases of the Breast	Number (%)
Carcinoma Breast	58 (27.5%)
Fibroadenoma	75 (35.5%)
Fibrocystic Diseases	18 (8.5%)
Inflammatory lesions	37 (17.5%)
Benign cysts	11 (5.5%)
Lactational Changes	5 (2.5%)
Lipoma	5 (2.5%)
Phyllode's Tumor	1 (0.5%)
Total	210

Table 2. Incidence of Carcinoma Breast as per age group

Age Group (yrs)	Number of Patients (%)
Less than 40	12 (21%)
40-50	21 (36%)
50-60	14 (24%)
More than 60	11 (19%)
Total	58