

Peak age incidence of Breast Cancer: our experience of 754 Patients at Breast Lab of FJMC/Sir Ganga Ram Hospital Lahore

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Amis and objective: To find out the peak age incidence of Breast Cancer in our patient and comparing it with the western incidence.

Study Design: It was a prospective clinicopathological study.

Material and Method: All patients reporting to the Breast lab with histopathological diagnosis of Breast Cancer.

Result: A total 754 patients were included in the study. They were divided into seven age groups and peak age incidence was established.

Conclusion: In our study the peak age incidence was group of 31 to 40 year, in our patient Breast Cancer was predominately a premenopausal disease.

Key words: Breast lump, Carcinoma, Incidence, Histopathology, Malignant.

INTRODUCTION

Worldwide, breast cancer is the most common cancer among women after skin cancer, and is the second leading cause of cancer death (after lung cancer) in women. Available evidence suggests that breast cancer might result from interactions between genetic elements and a variety of possible environmental factors. Ethnicity also plays a role in risk for breast cancer, with the incidence varying from lowest in certain groups of Asian women to highest in Caucasian women.¹

One –fourth women suffer from breast disease in their life time after puberty.^{2,3} Breast Cancer is very intriguing disease all over The world. Research is being carried out by clinicians and scientists on the high risk factors that may increase the chance of developing cancer in woman. There is definitely a need to focus on what factors are important in order to change the incidence of breast cancer in the future.⁴ Moreover there is a clear difference among the Asian and the Western population as far as high risk factors, that promote the development of breast cancer, are concerned. In our population breast cancer is now a disease of much younger women as compared to data quoted by the British and American cancer societies. However there are many others epidemiological factors involved in breast cancer and important known risk factors include diet, obesity and diabetes. Passive smoking may be important in the development of breast cancer too.⁵ Our women

are mostly multiparous, have low BMI, mostly breast feed their children due to religious and economic constraints and rarely have positive family history either. In our study we have focused on the peak age incidence of women suffering from breast cancer in Pakistan.

MATERIAL AND METHODS

This was a prospective clinicopathological study of a section of surgical patients reporting to Well Women Breast Clinic with carcinoma of the breast at Sir Ganga Ram Hospital Lahore. The study was carried out from January 2008 to July 2012 for a period of about three and half year. The study was basically designed to assess the peak age incidence of carcinoma of the breast in female patients presenting to Sir Ganga Ram Hospital Lahore, after confirmation with histopathological test.

All female patients presenting with histopathological diagnosis of Carcinoma of the breast were included in the study and registered for Biodata collection. They divided into seven Groups. Group A: included patients between 10-20 years of age. Group B: Patients between 21-30 years of age. Group C: Patients between 31-40 years of age. Group D: patients between 41-50 years of age. Group E: Patients between 51-60 years of age. Group F: Patients between 62-70 years of age. Group G: Patients between 71 and above.

Study Design: It was a prospective clinicopathological study.

Inclusion Criterion: Only female patients of all age groups with histopathological diagnosis of Carcinoma Breast were included in the study.

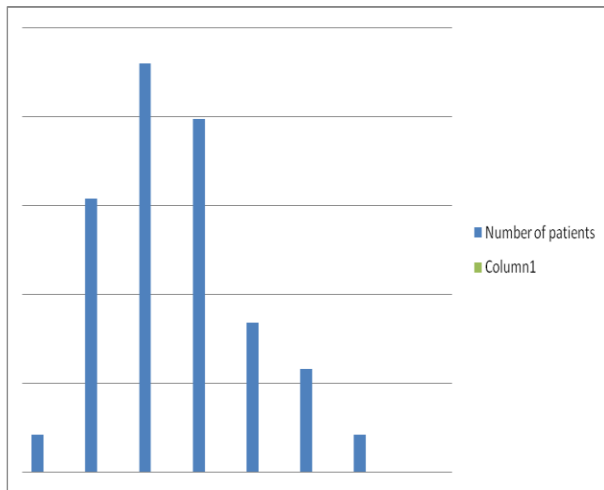
Exclusion Criterion: Female patients with other breast disease s and male patients were excluded from the study.

RESULTS

Table 1: Age group of patients and peak age incidence

Group	Age of Patiens	Number of patient
A	Less than 20	21
B	Between 21 to 30	154
C	Between 31 to 40	230
D	Between 41 to 50	199
E	Between 51 to 60	84
F	Between 61 to 70	58
G	Greater than 70	8
	Total	754

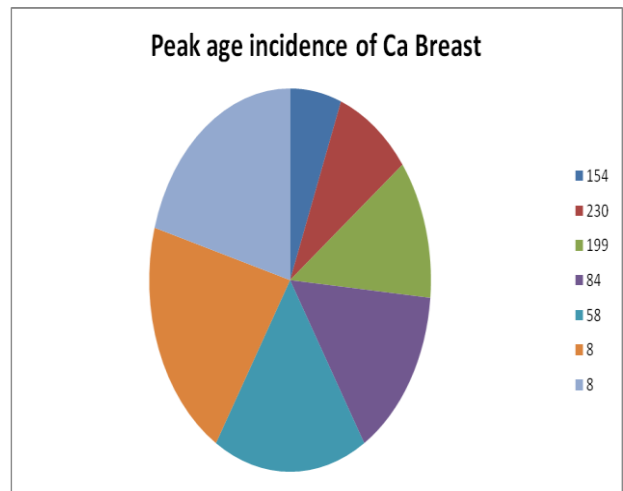
Graph 1: Graphical representation of the patient showing peak age incidence of Ca Breast



A total 754 patients were included in the study. Group A had 21 patients Group B had 154 patients. Group C had 230 Patients. Group D had

199 patients. Group E had 84 patients. Group F had 58 patients. Group G had 8 patients. (Table 1) Maximum number of patients was seen in Group C; whereas the least number of patients were seen in Group G. Thus the peak age incidence of Breast Cancer in our Pakistani women is between 31-40 years of age. The second most common age Group having Breast Cancer was between 41-50 years. (Graph 1) This also shows a preponderance of Breast Cancer in among young women.

Diagram 1



DISCUSSION

In our patients the peak age incidence was 31 to 40 year of age. (Diagram 1) Numerous investigators from Asian and Western countries have presented the epidemiological and clinical outcome data of women with Breast Cancer. These also indicate striking difference in the peak age for Breast Cancer among Asian and Western women. The peak age in Asian Women is between 40-50 years. Whereas the peak age in western women is 60-70 years. ⁶ The data provided by the National Statistics of U.K in October 2011 and also the Cancer Statistics of Ireland in September 2011 confirms that in their countries Cancer is primarily a disease of older people with incidence rates increasing with age. 63% incidence in people aged 65 and over. And 36% incidence in people aged 75% and over. ^{7,8} Altekruise SF et al also strengthen the western data of increased risk of Breast Cancer in older women. According to them a woman 's chance of being diagnosed with Breast Cancer is 0.43% between 30-39 years, 1.45% between 40-49 years,2.38% between 50-59 years and 3.45% between 60-69 years. ⁹ Nicole Fawcett

from Michigan also says that though Breast Cancer can affect any age, the disease is more common in post-menopausal women. However 25% of women with Breast Cancer are younger than 50 years.¹⁰ Another American Study confirms that pattern of peak age incidence among the western women is different than the Asian women. This study is also in contrast to findings of our study. According to the American Cancer society increasing age remains the greatest risk factor in developing the disease.¹¹ Studies show that 50% of patients with Breast Cancer are older than 65 years and 35% are older than 70 years.^{12,13} A mini symposium was held in Montreal, Canada, at the international Surgical week for the Breast Cancer. Surgical international 2007 addressing the question whether Breast Cancer is the same disease in Asian and western countries. Significant similarities were found among women of these different countries yet striking difference was noted on their peak age incidence. A study which shows a comparable figures to ours was carried out in Ghana. This study reveals that Breast Cancer affects young population. The age groups most commonly affected is 40-49 years. The study was carried out on 158 Breast Cancer patients ranging between 24-75 years of age.¹⁴ Dr. Sumeet Shah, an oncologist in Mumbai has also researched that Breast Cancer in India is now more common in 30's and 40's. There is a 2% increase of Breast Cancer in women age 20-30 years and 8% increase in incidence in women aged 30-40 years in a study carried out in India in 2011. Our study strengthens the fact that Asian women suffer from Breast Cancer at a younger age than the western women. It also reveals a thought provoking fact that Breast Cancer is now a disease of very young women.

CONCLUSION

In our study the peak age incidence for breast cancer is 31 to 40 years, whereas other Asian studies are showing peak age incidence between 40 to 50 years and western studies document peak age incidence between 60 to 70 years. These results need a special attention regarding the changing trends of Breast Cancer among Asian women. Thus we need further probing to dig out new epidemiological and etiological factors, which could be responsible for Breast Cancer in our population.

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