



ORIGINAL ARTICLE

## Frequency of carcinoma breast in palpable breast lumps in females above 30 years of age in South Punjab.

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**ABSTRACT... Objective:** To determine the frequency of breast carcinoma among females above 30 years of age presenting with palpable breast lumps in south Punjab. **Study Design:** Cross Sectional study. **Setting:** Department of Surgery, Ward No.4, Nishtar Medical University/ Hospital, Multan. **Period:** 1<sup>st</sup> July, 2021 to 31<sup>st</sup> December 2021. **Material & Methods:** One hundred and thirty six patients with palpable breast lumps were included in the study. History, clinical examination, mammography, fine needle aspiration cytology (FNAC) and Tru cut biopsy was done in all the patients. Finally the report of Tru cut biopsy was used to find out the frequency of breast carcinoma in all these patients. **Results:** Carcinoma was present in 43 (31.6%) patients and benign diseases were present in 93 (68.4%) patients. **Conclusion:** Carcinoma was present in higher frequency (31.6%) among patients above 30 years of age who presented with palpable breast lumps.

**Key words:** Carcinoma of Breast, Palpable Breast Lumps.

### INTRODUCTION

Carcinoma of the breast has imposed a major burden on health system worldwide. Incidence of breast cancer is increasing in the developing countries for which no definitive cause is found.<sup>1, 2</sup> It remains a primary cause of cancer deaths in females all over the world.<sup>3,4</sup> Breast cancer in the developing countries present in advanced stage as compared to developed countries. In developing countries it usually presents in younger age group.<sup>5-8</sup> This is because of lack of the breast screening programme in the developing countries like Pakistan. In our set up women carry a breast lump for a longer time till the disease is advanced. Following are the factor which contributes to delayed presentation like poverty, lack of education, lack of awareness and local customs. Females avoid breast examination even to doctors.<sup>9</sup>

Worldwide breast cancers affect 22% of all females. 42% of this occurs in the developing world. It is

the No.1 cause of cancer deaths in female.<sup>10</sup> In USA, only 10% female have malignancies and 60% of the patients have benign breast disease in palpable breast lumps.<sup>11</sup> In Pakistan different studies were carried out, which shows very low incidence of breast cancer (6%)<sup>12</sup> in 2001, while, in 2003 frequency was 24.2%; in 2005 in Karachi, it show 30% of breast lumps are malignant among females who present with the palpable breast lumps<sup>13</sup> and the frequency of breast cancer was 29% in patients presenting with breast lumps.<sup>14</sup>

Lump breast is the most frequent presenting symptom of the breast carcinoma. A palpable breast lump may become evident during breast self-examination (BSE) or clinical breast examination (CBE). Breast cancer may present as a small lump in women undergoing screening mammography which are not palpable.<sup>15</sup>

A typical cancer lump may be firm, have indistinct borders, attached to the skin or deep fascia

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with dimpling or nipple retraction. Benign lumps typically are discrete, well-defined margins, firm or rubbery texture, and are mobile.<sup>16</sup>

Survival rates of breast cancer in developing countries are generally poorer than the developed world; because of delayed presentation. Breast cancer in our country has a higher percentage of mortality and morbidity due to late presentation. Incidence and mortality rates are decreasing in the western countries, due to effective screening programs, early diagnosis and comprehensive care through multidisciplinary team.<sup>17</sup>

This study will look at the prevalence of breast cancer among women presenting with palpable breast lump in our set up. Moreover, it will also indicate whether the prevalence is still increasing or not. In this way, knowing the frequency of malignancy in our setting, it will help us to launch effective screening program in south Punjab for early detection of breast cancer and its proper management.

To determine the frequency of breast carcinoma among females above 30 years of age presented with palpable breast lumps in south Punjab.

## **MATERIAL & METHODS**

This Cross sectional study was conducted at Department of Surgery, Ward No.4, Nishtar Medical University/ Hospital, Multan for Six months from 01-07-2021 to 31-12-2021. One hundred and thirty six patients fulfilling inclusion criteria were included in this study. Non Probability consecutive sampling was used.

### **Inclusion Criteria**

All Females patients of 30-60 years of age with palpable breast lump of any size and duration, married and unmarried and those who breast fed as well as who did not.

### **Exclusion Criteria**

Females who presented with mastalgia and nipple discharge without any lump in breast. Females who are already diagnosed of case breast cancer.

A Proforma was developed to record findings of

this study. Cases fulfilling the inclusion criteria were selected from the surgical outdoor in Nishtar Hospital Multan and Multan Institute of Nuclear medicine & Radiotherapy (MINAR).

Approval from institutional ethical committee (23483/NMU&H) was taken to maintain privacy of the patient's identity. A fully informed consent was obtained from each patient assuring the confidentiality, describing the procedure and objective of the study.

All patients were evaluated by a team and with a consultant. A detail history, clinical examination, mammography, fine needle aspiration cytology (FNAC) and Tru cut biopsy were done. Finally the report of Tru cut biopsy was used to find out the frequency of breast carcinoma in females who presented with palpable breast lumps.

### **Data Analysis**

All the collected data was entered into SPSS version 19 and analyzed. The qualitative data like outcome parameters e.g. breast feeding (yes/no), Married or unmarried and Carcinoma was presented or not as frequency and percentage distribution. Quantitative data like age (in years) was presented as means and + standard deviations. The two groups were compared for any statistical significance. Chi-square test was applied to calculate the P-value. If it is < 0.05, it was taken as significant.

## **RESULTS**

Total 136 female patients were included in this study. The mean age of the patients was  $48.22 \pm 7.66$  years (age range from 30 – 60years). There were 29 (21.3%) patients of age range from 30 – 40 years, 46 (33.8%) patients of age range from 41 – 50 years and 61 (44.9%) patients of age range from 51 – 60 years (Table-I). Out of 136 patients, 130 (95.4%) were married and only 6 (3.6%) patients were unmarried. Histopathology revealed carcinoma in 43 (31.6%) patients and benign lesions were present in 93 (68.4%) patients (Table-II). The lesions were right sided in 78 (57.4%) patients and left sided in 58 (42.6%) patients. There were 30 (22.1%) patients who were nullipara and 106 (77.9%) patients who

were multipara. 96 (70.6%) patients who breast fed their children while 40 (29.4%) patients did not breast fed their children. The age of menarche was less than 13 years in 47 (34.6%) patients and > 13 years in 89 (65.4%) patients. In our study, 85 (62.5%) female had menopause, while 51 (37.5%) women did not had menopause.

Age (in years)	No. of Patients (%)
30 – 40	29 (21.3%)
41 – 50	46 (33.8%)
51 – 60	61 (44.9%)
Mean + SD	48.22 + 7.66
Range (years)	30 – 60

**Table-I. Distribution of patients by age (n=136)**

Breast Carcinoma	No. of Patients (%)
No	93 (68.4%)
Yes	43 (31.6%)
Total	136 (100%)

**Table-II. Distribution of patients by frequency of breast carcinoma (n=136)**

Age	Malignancy	
	Yes	No
	No. (%)	No. (%)
30 – 40 (n=29)	6 (20.7)	23 (79.3)
41 – 50 (n=46)	12 (26.1)	34 (73.9)
51 – 60 (n=61)	25 (41)	36 (59)
p-value	0.0971**	

**Table-III. Stratification of effect modifier (age) with outcome variable i.e. malignancy (n=43)  
\* Chi-square test / \*\* Not significant**

Statistically, no significant difference was found among the three age groups ( $p > 0.0971$ ).

We also stratified the effect modifiers like age of the patients with outcome i.e. presence of malignancy. It was found that approximately 41% patients of age group 51-60 years had malignancy. So, malignancy was seen more frequently among patients with older age groups. However, there was no statistically significant difference among different age groups.

Among the 47 patients with age of menarche < 13 years, malignancy was seen in 13 (27.7%) patients. Among the 89 patients with age of menarche > 13 years, malignancy was seen in 30 (33.7%) patients. Chi-square test was applied

and statistically, no clinically significant difference was found between the two groups ( $p > 0.0934$ ).

Age of menopause, statistically did not shows any significant difference between the two groups ( $p > 0.7486$ ). Before menopause, malignancy was seen in 18 (51.4%) patients and after menopause, malignancy was seen in 25 (50%).

Malignancy in women who had first child < 20 years was 13 (63.1%) and age of women when had first child > 20 years, malignancy has been seen in 30 (50%). Statistically, no significant difference was found between the two groups ( $p > 0.4861$ ).

Females who had breast feeding malignancy was seen in 13 (63.1%) and females who had not breast feeding, malignancy was seen in 30 (50%). Statistically, no significant difference was found between the two age groups ( $p > 0.4861$ ).

## DISCUSSION

Worldwide, breast cancer is a major public health problem. It is therefore essential that efforts in prevention and early diagnosis should be made. In general public, there is lack of awareness about the breast cancer. In addition teaching of women regarding breast self-examination should be included in the studies. Mammography screening programs are not available and properly implemented in Pakistan. Rate of survival depends upon the stage of the disease at diagnosis. About 54% of the women are diagnosed in stage II, only 16% are diagnosed in stage I, 30% females are diagnosed in advance stage.<sup>14</sup>

Breast cancer remains a significant cause of cancer related deaths in developing countries. The epidemiology of breast cancer in Pakistan is difficult to describe mainly due to a lack of tumor registry.<sup>18,19</sup>

An early diagnosis and prompt treatment can reduce the morbidity and mortality associated with this disease. Current study aimed at determining the frequency of early breast cancer in women presenting with breast lumps so as to produce

data that should help in planning educational strategies and screening programs.

Most of the lesions are usually benign but may be malignant; therefore, the aim in palpable breast lumps is mainly to differentiate between benign breast diseases from the cancer. The results of this study showed a high frequency of carcinoma of breast i.e. 31.6% among patients presented with palpable breast lumps.

In Pakistan, carcinoma breast is the commonest malignancy in pre and postmenopausal women. Breast cancer usually presented in advanced stage due to delayed presentation, is a common problem in our country.<sup>14</sup> In, China, India, Japan and Philippines incidence of breast cancer is much less as compared to Pakistan although risk factors are similar in the population.<sup>20, 21</sup>

In our study, the mean age of the patients was 48.22+7.66 years. In a study by Parveen S, et al<sup>22</sup>, the mean age of their patients were 48.2 ± 3.3 years. In their study, majority of the patients were in age group 41 – 50 years, i.e. 67%, while in our study, approximately 45% patients were of age group > 50 years. In another study by Naeem M, et al, 90 mostly women belongs to age group 40–49 years (30.4%). Majority of our patients (95.4%) were married. Isaac U, et al, 13 in another local study also documented that most of the patients were married (69%).

In our study, breast carcinoma was present in a higher frequency i.e. 31.6%. In a study conducted in USA, it was found that only 10% patients had malignancies who presents with palpable lump breast.<sup>11</sup> In Pakistan, a study carried out in 2001 reported a very low incidence of breast cancer (6%)<sup>12</sup>, while another study in 2003 reported a frequency of 24.2%; Another study was carried out in Karachi in 2005, at Jinnah Postgraduate Medical Centre<sup>13</sup>, which showed 30% frequency of breast carcinoma among females with palpable breast lumps. Summra et al shows frequency of breast cancer 29% of females in their study. These findings are similar to our study.<sup>14</sup>

Right sided lesions were seen in 57.4% patients

while in a study by Naeem MA, et al<sup>23</sup>, (52.2%) patients had left sided lesions. In our study, the majority of the patients were multipara (77.9%). In another study by Malik MA, et al<sup>24</sup>, it was observed that 90.3% were pre-menopausal and multiparous. Majority of the mothers (70.6%) had history of breast feeding their child. Approximately one third patients in our study had history of menarche < 13 years and 62.5% patients had menopause while in a study by Isaac U, et al, 13 approximately 32% patients were presented in post-menopausal age group.

This study had certain limitations. This study was conducted in a tertiary care hospital of government setup, which represents a poor patient's population. This was not a representative of total population of our country. So, more studies in different setups may be needed before giving final conclusion. This was a study with limited population size.

## CONCLUSION

The results of this study conclude that frequency of breast carcinoma was high (31.6%) among patients who presented with palpable breast lump.

So, every patient with palpable breast lump should be screened for the presence of malignancy.






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### AUTHORSHIP AND CONTRIBUTION DECLARATION

No.	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Fariha Ahmed	Main author, Surgeon and perform the procedure.	
2	Aleena Safder		
3	Syed Shams-ul-Hassan	Collect the data.	
4	Shafiq Ullah Ch	Analysis of data.	
5	Muhammad Sabir	Analysis of data.	
6	Naveed Akhtar	Review the literature.	