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# Frequency of Clinically Palpable Lumps in Patients Presenting with Breast Disease in Breast Clinic

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## Abstract

**Objective:** To study the frequency of clinically palpable lumps in patients presenting with breast disease in breast clinic operated by a female surgeon in one year.

**Study Design:** Descriptive case series.

**Place and Duration:** Benazir Bhutto Hospital (BBH) for six months from Jan 2013 to June 2013.

**Methodology:** In this study patients, presenting with breast disease in the weekly organized breast clinic of a teaching hospital, were enrolled. Patients were divided into 2 groups, i.e., Group A and Group B. information regarding age, presenting complaints and diagnostic findings were collected. All patients with clinically palpable lumps were further investigated for benign or malignant nature of disease according to triple assessment (clinical examination, imaging and tissue diagnosis).

**Results:** In the weekly breast clinic at BBH a total of 241 women presented with breast disease in 1 year. Out of whom 155 patients i.e. 64.31% had a clinically palpable lump in breast and 86 patients i.e. 35.68% presented with pain and other symptoms. Among the palpable lumps, lumps were benign in 75.48% and 24.51% lumps came out to be malignant in a ratio of 3.07:1.

**Conclusion:** In patients presenting at our breast clinic, the commonest symptom was a palpable lump.

**Key Words:** Clinically palpable lump, Breast clinic.

## Introduction

Breast disease has become increasingly feared with the increase in incidence of breast cancer. Women

with symptomatic breast disease need efficient management, aiming to minimize delay and

unnecessary follow-ups, and unnecessary surgeries.<sup>1,2</sup>

The outpatient department is the foremost point of contact for the majority of these women. Organization of this service should fulfill the specialized demands of the disease burden<sup>2,3</sup> Reorganization of existing resources enabled the establishment of the breast clinics. Triple assessment in breast disease using imaging, cytology and clinical examination in combination have a diagnostic accuracy of more than 98%<sup>2,4,5</sup> and so is adopted in practice in breast clinics.

Breast tissue is subjected to a great magnitude of hormones with cyclical changes and this renders it susceptible to diseases in females of all ages.<sup>6</sup> Palpable breast lumps are the second most common presentation of breast disease in various studies, commonest being breast pain.<sup>7,8</sup>

Clinicians need the ability to appraise the vast and confusing spectrum of presentation of breast diseases as for appropriate management, especially when sitting in a breast clinic. With this background the objective of study was to analyze the pattern of presentation, presence of palpable lump and benefits of surgeon operated breast clinics, in diagnosis.

## Methodology

Breast clinic was set up at BBH, being operated on weekly basis by a female surgeon. At first visit in the clinic a pre-designed proforma consisting of demographic data, presenting complaints and physical examination was filled and on later visits same data was updated with investigations and diagnosis. In this descriptive study, female patients presenting in breast clinic of BBH Rawalpindi during

study time were enrolled after approval from ethical review committee of the BBH and patient's informed consent. Patients were interviewed, explained and counseled about the procedure of the study in the breast clinic on their first visits. All patients with symptomatic breast disease above the age of 15 years were included, excluding all males, previous year follow ups and the females below 15 years of age. Patients were divided in two main groups; i.e. patients presenting with a palpable lump (Group A) or no lump (Group B). A triple assessment including clinical examination, imaging like ultrasonography (for young patients below 35 years) or mammography (for older patients >35 years) and a pathological examination—FNAC (in clinically benign lumps) or core needle biopsy (in clinically malignant lumps), were done in all patients. Age and marital status was also taken into account. After diagnosis patients were further managed accordingly i.e. reassurance and supportive medicines for benign breast disease (proved by triple assessment) and excision for benign lumps and mastectomies +/- neoadjuvant/ neoadjuvant chemo radiotherapy depending upon stage of malignancy for malignant lumps. All patients were followed up for 1 year in breast clinic.

## Results

In the weekly operated breast clinic at BBH a total of 241 women presented with breast disease. Out of whom 155 patients i.e. 64.31% had a clinically palpable lump in breast and 86 patients i.e. 35.68% presented with pain and other symptoms. Ratio of palpable lump to no lump had been 1, 8:1. 58.09% of these women had age less than 30 years, 31.12% had ages between 31-50 years and 10.78% were

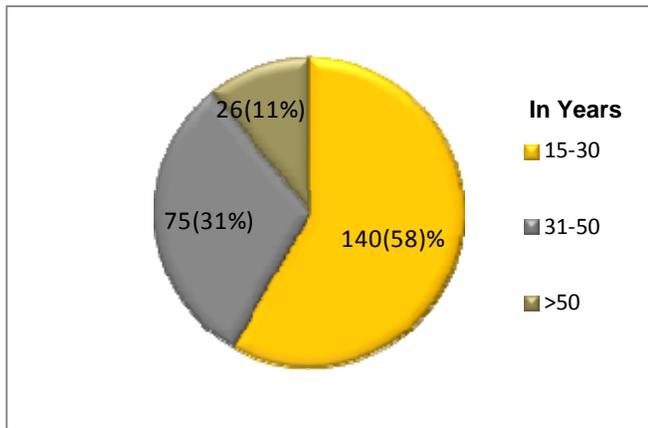
more than 50 years of age. 70.95% were married and rest 29.04% were unmarried. In our study palpable lump had been the most frequent presentation of symptomatic breast disease. Among the palpable lumps, patients having benign lumps were 203 (75.48%). Malignant cases were 38 (24.5%) with mean age 45.6 and SD 13.665. Benign and malignant cases were reported in the ratio of 3.07:1. The demographic features like age and marital status are shown in Figures 1 and 2. The diagnosis of lumps and nature of neoplastic types are given in Table I and II, respectively.

**Table I. Frequency of presentation of lump and other presentations in females presenting in Breast Clinic (n=241)**

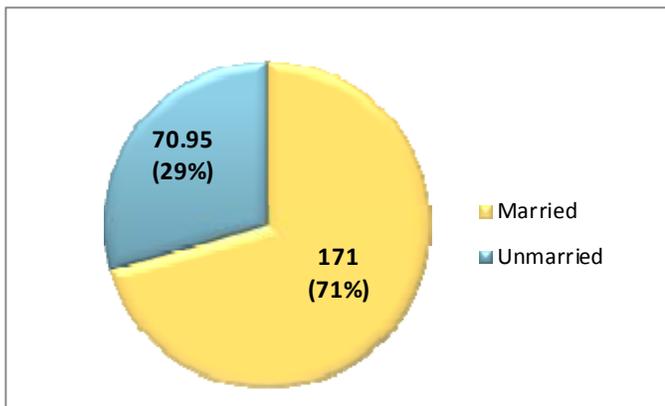
PRESENTATION	No. of women	Percentage %
Palpable Lump	155	64.31
Others (pain mainly)	86	35.68

**Table II. Frequency of benign and malignant lumps in patients presenting with Breast Disease in Breast Clinic (n=241)**

Diagnosis	No of women	Percentage %
Benign lump	117	75.48
Malignancy	38	24.51



**Figure 1. Ages of females presenting in Breast Clinic with Breast diseases.**



**Figure 2. Marital status of females presenting in Breast Clinic with Breast Disease**

## Discussion

Carcinoma of the breast exceeds all female cancers worldwide as a leading cause of mortality more so in the developing world.<sup>9</sup> Breast clinics run by specialists play a prime role in early and correct diagnosis of breast disease.<sup>10</sup> Follow-up of breast disease are at times unnecessary and is specially questionable for benign breast disease.<sup>11</sup> Besides there is doubtful effectiveness of follow-up for breast cancer,<sup>10</sup> most surgeons consider these visits pivotal.<sup>11,12</sup> The follow-up policy should conform with published guidelines.<sup>13</sup>

Women with suspected breast cancer need thorough assessment in a dedicated breast clinic offering imaging and fine needle aspiration cytology at the initial visit.<sup>14,15</sup> One stop clinics are cost effective as they offer same day reporting of diagnostic investigations reducing delay.<sup>16-18</sup> These clinics should be provided by consultants as women are seen in such clinics only once.<sup>7,15</sup> Ours is a breast clinic operated by a surgeon and triple assessment was taken as standard for diagnosis.

Benign breast diseases constitute a heterogenous group of lesions including developmental abnormalities, inflammatory lesions, epithelial and

stromal proliferations and neoplasia. Many women have breast symptoms – swelling, tenderness, nodularity, pain, lumps, nipple discharge or breast infections and inflammation.<sup>19</sup>

In our study, 58.09 % of these women had age less than 30 years, 31.12% had ages between 31-50 years and 10.78% were more than 50 years of age. Whereas 70.95% were married, 29.04% were unmarried. Almost 64.31% of the patients had a clinically palpable lump in breast and 35.68% presented with pain and other symptoms. Ratio of palpable lump to no lump had been 1.8:1. Among the palpable lumps, patients having benign lumps were 117 (75.48%) with mean age of 30 years and SD= 10.97. Malignant cases were 38 (24.5%) with mean age 45.6 and SD 13.665. Benign and malignant cases were reported in the ratio of 3.07:1. Similarly according to Donnelly J, between October 2008 and March 2009, Of the 282 referrals, 124 (54%) were for a lump in Yorkshire<sup>20</sup> predominantly benign.

In another Pakistani study in 2010, the most common presentation was breast lump in females under the age of 30 years,<sup>21</sup> with majority presenting as benign disease.

Similar to Pakistan, According to Islam and Mursheed, the commonest complain was lump followed by pain in adolescents of Bangladesh<sup>22</sup> with a predominant benign disease.

Another prospective study of 121 consecutive patients with breast complaints presenting in South West Nigerian Surgical Outpatient Clinics showed the commonest symptoms to be breast lump in 111 (91.7%) patients, and breast pain in 28 (23.1%)<sup>23</sup> supporting our study results.

A study experience at a teaching hospital in rural India showed a total of 54.2% of patients presented with only lump as their chief complaint and the next major symptom was lump and pain in 20.9%. Pain was the only symptom in 16 (14.5%) patients.<sup>8</sup>

A study in Nepal assessed 100 cases of breast disease in 2013. The benign breast disease (BBD) was the commonest finding (96%). Among BBD, 68% had a palpable lump and 22% had mastalgia<sup>24</sup>. And similarly according to Patel et al, of the 200 patients, 5.7% belonged to the 21-29 years age group with pain being the commonest mode of presentation. Fibroadenoma was the commonest histologic lesion in 42.6% followed by inflammatory lesions 7% and invasive cancer in 6.6% of cases.<sup>25</sup>

Another study conducted in Pakistan included 214 patients with mean age of 22.11 years. Forty six percent of the patients were at the age 20 years or less. Most common mode of presentation being painless lump i.e. 61.22%, followed by pain and lump in 20.56%.<sup>26</sup> The result were similar to our results with lump as most common presentation.

## Conclusion

The delivery of outpatient services is undergoing significant change. Breast clinics and their audits can highlight the real incidence and prevalence of signs and symptoms and hence pattern of breast disease in the population. In our set up breast clinic proved very beneficial and commonest symptoms in patients with breast disease had been a palpable lump with predominance of 3:1 ratio of benign to malignant lump and married women of middle age were affected more with breast disease.

However more breast clinics need to be set up under consultant surgeons to correctly measure the burden of breast disease and hence improve management.

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