

# Malignancy in Females Presenting to A Surgical OPD with Breast Lumps in Our Population

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## ABSTRACT

**Objective:** To assess the frequency pattern of breast diseases presenting as breast lumps in a surgical out patients and to find out the age related frequency of malignancy in these cases.

**Methodology:** This cross sectional study took place at the department of general surgery, Peoples University of medical and Health Sciences for women Nawabshah; in the course of 2 year during Feb 2011 and Feb 2013. All fresh female cases of breast lumps arriving at outpatient department were investigated for breast lumps in order to establish histopathological diagnosis. Data was collected via study proforma.

**Results:** Total 277 cases of breast lumps were investigated for the malignancy and the mean age of study subjects was 37.52±14.79 years. Most of the cases 210(75.8%) had benign lesion and 67(24.2%) cases were observed as malignant. Frequency of benign and malignant lesions was statistically significant according to age (p=0.001).

**Conclusion:** Malignancy was observed among 24.2% of women presented with breast lumps and it was found to be more common in women aged above 30 years.

**Key words:** Breast, Lump, Malignancy

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## INTRODUCTION

Carcinoma of the breast remains a big health issue and presently is the commonest tumour globally.<sup>1</sup> Breast carcinoma is the highly prevalent cancer diagnosed among females and 2nd major factor of cancer related deaths among females following their 3<sup>rd</sup> decade of life.<sup>2-4</sup> Incidence of the breast carcinoma is increasing worldwide, specifically among developing countries.<sup>5</sup> In Pakistan, breast cancer is the most commonly encountered cancer among females, representing around one in nine female patients.<sup>6</sup> Fear of deformation, reduction of sexual attractiveness, and death can be a female's response to any real or possible breast condition. Early detection and intervention are being hampered by cosmetic concerns, false insecurity, and apprehension of infertility. Patients often require specific treatment of benign conditions showing to enhance understanding, and they normally complain at initial stages of the disease phase when symptoms of cancer are clinically not apparent. As a result, it is up to the surgeons to exclude cancerous growth with minimally invasive procedures, preventing the patient from experiencing mutilating surgical procedure but also ensuring that the identification of malignant tumors is not missed. A fresh mass/lump is the most frequent symptom of breast cancer.<sup>3</sup> Further indications involve generalized swelling in a breast part, nipple retraction or pain, skin dimpling, scaliness or redness in areola or nipple and a secretion except milk, ulcerations and indications of metastasis. Though, more than 80% of lumps linked to breast have been proven benign, however each breast lump needs to be evaluated and examined by the surgeon.<sup>7</sup> Early diagnosis has the potential to increase survival. A bulk of research has been reported on breast conditions around the world including Pakistan. However, there are few studies that compare the prevalence of malignant and noncancerous breast lumps in a surgery

outpatient department with respect to the patient's age. The aim of this study is to provide surgeons with a decision-making guidance when interacting with patients of various ages who arrive with such a breast lump at our surgical clinic.

## MATERIAL AND METHODS

This cross-sectional study was performed at General Surgery department, People's University of Medical and Health Sciences, Nawabshah, in the course of 2 year during February 2011 and February 2013. All fresh female cases of breast lumps arriving at outpatient department, with an age range of 15 years and more were enrolled. Patients with breast abscess, acute mastitis, and patients detected and treated with breast tumor who presented with recurrent lesion, and all those who were not agree to participate in the study were excluded. Each case of breast lump underwent FNAC at Department of Pathology, PMCH Nawabshah. The clinical test scores and the patient's profile were achieved. For a FNAC assessment of the lump, these cases were sent to the pathology department. On clinical and FNAC bases, histologically diagnosed cases with a benign lesion were reassured. Patients with a histologic diagnosis of noncancerous lesion and a mobile lump that showed no clinical signs of carcinoma were reassured and required to respond at six-month intervals. They were instructed to do self-examination of breast to note any unusual changes. Cases with benign lesion's cytology diagnosis and showing symptoms of suspected malignancy were exposed to an incision or core needle biopsy to validate the pathological diagnosis. After histopathological diagnosis, mastectomy was performed in patients presenting with malignancy symptoms and those who were positive for cancer on FNAC and then histopathological diagnosis. Patients, who were worried about their lumps, got their lumps removed and were

referred to histopathology. All the data was entered into a self-made proforma and SPSS version 20 was used to analyze the data.

## RESULTS

Total 277 cases of breast lumps were investigated for the malignancy. The mean age of study subjects was  $37.52 \pm 14.79$  years. Out of all, 47.7% cases had lumps in right breast, left breast was involved in 45.5% of patients, whereas 19(6.9%) study subjects were found to have bilateral breast lumps. 75.8% cases were diagnosed with benign lumps of breast, while 67 (24.2%) cases were diagnosed with malignant lumps. Hence, the incidence of malignancy in all of the studied cases of breast lumps in current study was found to be 24.2%. Table.1

Histopathological evaluation of breast lumps has been showed in table.2

Malignancy was mostly found among having age more than 30 years. However, benign and malignant lesions were found statistically significant according to age ( $p=0.001$ ). Table.3

Table 1: Patients distribution according to age groups and site of breast lump

Variables		Statistics
Age	Mean $\pm$ SD	37.52 $\pm$ 14.79 years
Site	Right	132(47.7%)
	Left	126(45.5%)
	Bilateral	19(6.9%)
	Total	277(100.0)
Incidence of malignant lump	Benign	210(75.8%)
	Malignant	67(24.2%)

Table.2 Histopathological evaluation of breast lump n=277

Variables	Frequency	%	
Benign breast lump	Hbrocystic Disease	71	33.8
	Fibroadenoma	57	27.1
	Duct Pappiloma	5	2.4
	Duct Ectasia	24	11.4
	Lipoma	2	1.0
	Atypical Duct Hyperplasia	2	1.0
	Lactating Adenoma	4	1.9
	Chronic Non-specific Mastitis	9	4.3
	Abscess Wall	4	1.9
	Chronic Granulomatous Mastitis	6	2.9
	Simple Cyst	3	1.4
	Benign Cystosarcoma Phyllodes	1	.5
	Tubular Adenoma	4	1.9
	Galactocele	5	2.4
	Fibroadenosis	3	1.4
	Traumatic Fat Necrosis	3	1.4
	Epidermal Inclusion Cyst	2	1.0
	Neurofibroma	1	.5
	Angiolipoma	2	1.0
	Antibioma	2	1.0
Total Benign Lumps	210	100.0	
Malignant breast lump	Infiltrating Duct Carcinoma (N.O.S.)	46	68.7
	Tubular Carcinoma	1	1.5
	Mucinous Carcinoma	2	3.0
	Papillary Carcinoma	1	1.5
	Medullary Carcinoma	3	4.5
	Metaplastic Carcinoma	2	3.0
	Infiltrating Lobular Carcinoma	5	7.5
	Intraductal Carcinoma	2	3.0
	Pagets Disease	3	4.5
	Malignant Phyllodes Tumour	1	1.5
	Stromal Sarcoma	1	1.5
Total	67	100.0%	

Table.3. Incidence of malignant and benign lumps according to age n=277

Age groups	Benign	Malignant	p-value
11 to 20 years	36 (17.1%)	00	0.001
21 to 30 years	70 (33.3%)	1(1.5%)	
31 to 40 years	53(25.2%)	16(23.9%)	
41 to 50 years	33(15.7%)	21 (31.3%)	
51 to 60 years	12(5.7%)	13(19.4%)	
61 to 70 years	5 (2.4%)	12(17.9%)	
71 to 80 years	1 (.5%)	3 (4.5%)	
>80 years	00	1 (1.5%)	
Total	210(100.0%)	67 (100.0%)	

## DISCUSSION

Breast cancer patients present to surgery centers with a variety of signs such as pain, breast lumps, nodularity, nipple discharge, skin ulceration, and so on; and a lump in the breast is the most prominent symptom of these. High prevalence of cases presenting with breast lump were diagnosed to have breast cancer. In this study, overall incidence of malignancy was 24.2% in all breast lumps cases. On the other hand Usmani K. et al<sup>7</sup> reported 26% incidence and Chaudhury M. et al<sup>8</sup> reported 24.8% of incidence. However, Fleming et al<sup>9</sup> reported 19.6% incidence in Australia. Furthermore, most of the patients were either poorly educated or illiterate, with no knowledge regarding breast cancer. The study<sup>9</sup> also found that women with low education had a statistically higher frequency of being diagnosed with cancerous breast lumps. In this study, most common age groups were 31 to 40 years and 41 to 50 years. These values are greater than those observed by Donegan (21%)<sup>10</sup> and by Bermette (15%) in UK<sup>11</sup> however lesser than those reported by the study of Usmani et al<sup>7</sup>, from Lahore, reporting a peak incidence rates within an age group of 30-39 years. The incidence value reported in present study was lower than that reported by Donegan W. L (30%).<sup>10</sup> Furthermore, in the published studies, a large number of breast lumps diagnosed as benign, such as fibrocystic disease and fibroadenomas, were documented to regress with growing age. Regression of breast lumps up to 68% was reported in the study of Sainsbury et al from UK<sup>12</sup>, 52% of fibroadenomas in the study of Carty et al<sup>13</sup> from UK and 40% of fibroadenomas in the study of Dixon from UK.<sup>14</sup> In females of age below 35-40 years, they also suggest a conservative preference of non-excision if the lump is likely to resolve. The average age at diagnosis of malignant and benign disease in this study was 37.52 years. However, Shah S H<sup>15</sup> reported these values as 48 years and 34.7 years respectively from Karachi. According to Shahina et al<sup>16</sup>, the average age of patient with breast lumps for being diagnosed as malignant was 47 years. Early diagnosis and management can be decrease the burden of morbidity and mortality caused by breast cancer.

## CONCLUSION

As per conclusion the frequency of breast lump malignancy was found to be 24.2%. Breast tumor is rare in women aged below 30 years. In each successive age cohort, however, the incidence of breast lump being diagnosed as malignant escalated with age. Patients diagnosed with a benign lesion must be required to undergo monthly self-examinations of breast and an annual FNAC for lump.

Women with breast lumps must be advised to seek immediate medical treatment. This would aid in the early detection and prevention of breast cancer.

## REFERENCES

1. Akram M, Iqbal M, Daniyal M, Khan AU. Awareness and current knowledge of breast cancer. *Biological research*. 2017 Dec;50(1):1-23.
2. Michael J Greenall. The Breast. In: Peter J Morris, Ronald A Malt eds. *Oxford Textbook of Surgery*. Vol I. Oxford, New York: Oxford University Press. 2005: 789-844.
3. Wilson R E. The Breast. In: Sabiston D C ed. *Textbook of Surgery, The Pathological Basis of Modern Surgical Practice*. 13th edn. Philadelphia: W B Saunders. 2009: 530-570
4. Berg J W, Butter R V. Breast Cancer. *Cancer* 2007 Jan 1; 75(1): 257- 69.
5. Corbex M, Bouzbid S, Boffetta P. Features of breast cancer in developing countries, examples from North-Africa. *European journal of cancer*. 2014 Jul 1;50(10):1808-18.
6. Asif HM, Sultana S, Akhtar N, Rehman JU, Rehman RU. Prevalence, risk factors and disease knowledge of breast cancer in Pakistan. *Asian Pacific Journal of Cancer Prevention*. 2014;15(11):4411-7. 7. Usmani K, Khamm A, Afzal H, Ahmed N. Breast carcinoma in Pakistani women. *J Environ Pathol Toxicol Oncol* 2007; 15(2-4): 251-253.
8. Chaudhuri M, Sen S, Sengupta J. Breast lumps a study of 10 yrs. *J. Indian Med Assoc* 2003 Dec; 93(12) 455-7.
9. Raju GC, Jankey N, Narynsingh V. Breast diseases in young West Indian women; an analysis of 1051 consecutive cases. *Postgraduate Med Journal* 2000;61(721): 977
10. Donegan W L. In: Donegan W L and Spratt J S eds. *Cancer of the Breast*. 4th edn. Philadelphia: W B Saunders. 2003: 87-199
11. Bennett I C, Freitas R Jr, Fentiman I S. Diagnosis of breast cancer in young women. *Aust. New-Zeland J. Surg* 2006 Apr; .61(4): 284-9
12. Sainsbury J R, Nicholson S, Needham G K, Wadehra V, Farndon J R. Natural history of the benign breast lumps. *Br. J. Surg* 2008Nov; 75(11): 1080-2.
13. Carty N J, Carter C, Rubin C, Ravichandran D. Management of fibroadenoma of the breast. *Ann R. Coll Surg Engl* 2004;72(2): 127-30.
14. Dixon J M, Dobie V, Lamb J ,Walsh J S, Chetty U. Assessment of the acceptability of conservative management of roadenoma of breast, *Br. J Surg*2010; 83: 264-265
15. Shah S H, Kayani N, Hasan. S H. Diagnostic evaluation of needle aspiration cytology in the management of palpable breast lesions. *JPMA* 2002;48: 7-8.
16. Shahina Parveen, Shahid M A. Prognostic factors in stage I breast cancer - a prospective study. *JPMA* 2009;47(4): 117-118.