

Clinico-morphological pattern of breast lump in tertiary care hospital

Nitesh Jumnake¹, Sudhir Deshmukh^{2*}, Satish Gireboinwad³

¹Assistant Professor, ²Dean, ³Associate Professor, Department of General Surgery, SRTR Medical College Ambajogai, Beed, Maharashtra, INDIA.

Email: knlpisre77@gmail.com

Abstract

Background: For developing countries, where the facility for detecting cancer at an early stage is not possible, symptomatic findings can be used as an indication for early diagnosis which could prevent the women from late stage presentation of disease. **Aim:** To describe some of the clinico-morphological features of the breast lump cases seen at a tertiary level hospital. **Material and Methods:** In clinically selected 100 cases, triple approach including clinical examination coupled with ultrasonographic examination (USG) and mammography was also carried out. USG was carried out to assess the extent of the axillary lymph nodes more precisely. Diagnosis was confirmed by core-cut biopsy, tru-cut biopsy and frozen section biopsy. **Results:** Out of 52 clinically diagnosed as carcinomas 50 were proved correct on histopathologically while 86 fibroadenomas diagnosed on clinical examination 2 turned out to be malignant on histopathology. **Conclusion:** Patients of breast cancer are coming to a tertiary level hospital very late, mostly with clinical features of advanced disease. Understanding its clinical and morphological features holds a great promise for early detection and prevention of this cancer.

Key Words: Breast lump, fibroadenoma, malignancy, clinical diagnosis, histopathology.

*Address for Correspondence:

Dr. Sudhir Deshmukh, Dean, Department of General Surgery, SRTR Medical College Ambajogai, Beed, Maharashtra, INDIA.

Email: knlpisre77@gmail.com

Received Date: 02/09/2019 Revised Date: 09/10/2019 Accepted Date: 06/11/2019

DOI: <https://doi.org/10.26611/1061239>

Access this article online

Quick Response Code:



Website:

www.medpulse.in

Accessed Date:

11 December 2019

access to high quality treatment service is another way of preventing the fatal outcome. Detection refers to the recognition of any sign of symptom of disease. Technique used for the detection include history, physical examination, mammography, thermography, fine needle aspiration cytology and biopsy. By contrast there is only one method of making a definitive diagnosis – Histological examination of a tissue specimen.² For developing countries, where the facility for detecting cancer at an early stage is not possible, symptomatic findings can be used as an indication for early diagnosis which could prevent the women from late stage presentation of disease. We proposed a study to examine the clinical validity of the symptoms as well as the associated between symptoms and tumors characteristics. The ever increasing incidence of malignancy in general and breast in particular, associated with increased consciousness among females for any abnormal feel in the breast, and lack of much data about breast lumps from different parts of our country, have prompted us to study the clinico-morphological pattern of breast lump cases.

INTRODUCTION

Breast cancer is the most common malignancy in world and second most common in India after cancer cervix. Among humans it is widely distributed throughout the world. It is now considered as systemic disease rather than loco-regional disease.¹ Early detection of breast cancer through organized screening in unselected women with an average risk in target populations has been impressive in reducing the mortality from the disease. Moreover, awareness regarding the diagnosis of early signs and symptoms in symptomatic population with

How to cite this article: Nitesh Jumnake, Sudhir Deshmukh, Satish Gireboinwad. Clinico-morphological pattern of breast lump in tertiary care hospital. *MedPulse International Journal of Surgery*. December 2019; 12(3): 108-112. <https://www.medpulse.in/Surgery/>

MATERIAL AND METHODS

This prospective study of the clinical evaluation of breast lumps was conducted at Tertiary Health Care Centre over a period of two years.

Inclusion criteria

- Any patient attending the surgical department directly or referred with a definite breast lump.

Exclusion criteria

- Pre-pubertal females with breast buds being perceived as lumps.

In clinically selected 100 cases, triple approach including clinical examination coupled with ultrasonographic examination (USG) and mammography was also carried out. USG was carried out to assess the extent of the axillary lymph nodes more precisely. Axillary lymph node examination was done clinically as well as by ultrasound. Most of the patients of breast cancer that we receive are locally advanced cancers and have palpable lymph nodes. In case of male breast, past history of hepatitis, malnutrition, renal failure, chronic chest diseases and Hansen's disease along with drugs

history of taking estrogen, tranquilisers, diuretics and steroids was done. Examination of genitalia (testis) was also done. Diagnosis was confirmed by core-cut biopsy, tru-cut biopsy and frozen section biopsy.

RESULTS

One hundred cases suffering from various types of breast lumps have been studied, and a large majority 52 were clinically suspected to be suffering from cancer; while 96 were neoplastic and 52 were non-neoplastic. In neoplastic (benign), fibroadenoma were suspected in 86 cases, duct papilloma 2 cases and gynaecomastia 8 cases; while in non-neoplastic group, inflammatory lumps were 46 cases and fibroadenosis in 6 cases. Majority of benign cases were found to be in the age-group of below 40 years, while malignant lumps were found to be in age group above 40 yrs. Majority of the inflammatory cases (abscess) were found to have early onset of symptoms with acute history of less than 2 wks while non-inflammatory cases like carcinoma and fibroadenomas have history of more than 2 wks.

Table 1: Physical findings in different breast lumps histopathologically proved

Clinical findings	Carcinoma	Fibro adenoma	Fibro adenosis	Inflammatory	Duct papilloma	Gynae comstia
Breast						
Right	22	44	04	24	01	04
Left	28	40	02	22	01	04
Bilateral	02	02	--	--	--	--
Nipple position						
Normal	04	82	06	22	--	08
Destruction	02	--	--	02	02	--
Retraction	26	03	--	02	--	--
Displacement	12	01	--	--	--	--
Discolouration	--	--	--	--	--	--
Deviation	06	--	--	20	--	--
Discharge	02	--	--	--	--	--
Areola						
Normal	40	80	06	44	02	08
Crack	02	02	--	--	--	--
Fissure	02	--	--	--	--	--
Ulcer	04	--	--	01	--	--
Eczema	--	04	--	--	--	--
Discharge	04	--	--	01	--	--
Skin over breast						
Normal	06	84	06	05	02	06
Redness	08	02	--	40	--	02
Dimpling	04	--	--	--	--	--
Retraction	03	--	--	--	--	--
Puckering	03	--	--	--	--	--
Peau'd orange	18	--	--	--	--	--
Tethering	04	--	--	--	--	--
Fungation	02	--	--	--	--	--
Ulceration	04	--	--	--	--	--
Breast						
Normal	20	80	06	06	02	08

Enlarged	18	06	--	40	--	--
Retracted	14	--	--	--	--	--
Quadrant involved						
Upper outer	20	27	02	08	--	05
Upper inner	06	18	01	05	--	02
Lower inner	08	18	01	06	--	01
Lower outer	10	19	--	20	--	--
Central	04	04	--	--	02	--
Tail of spence	02	--	--	--	--	--
All quadrants	02	--	02	02	--	--

Table 2: Morphological characteristics of different breast lumps

Lump characters	Carcinoma	Fibro adenoma	Fibro adenosis	Inflammatory	Duct papilloma	Gynae comstia
Size						
1x1 cm and below	06	19	--	08	01	--
2x2 cm	12	19	--	06	01	--
3x3 cm	18	25	03	16	--	04
4x4 cm and above	16	23	03	16	--	04
Shape						
Rounded	18	48	--	42	--	04
Discoid	16	21	04	--	--	03
Irregular	18	17	02	04	02	01
Margins						
Well organized	10	84	--	24	--	08
Diffuse	42	02	06	22	02	--
Tenderness						
Present	16	50	05	34	--	08
Absent	36	36	01	12	02	--
Consistency						
Soft	04	08	04	12	--	--
Firm	20	56	02	34	02	08
Hard	28	22	--	--	--	--
Fixity of lump						
Mobile	06	74	06	14	--	08
Breast alone	08	12	--	32	--	--
Breast and skin	22	--	--	--	02	--
Breast and skin and muscle	14	--	--	--	--	--
Chest wall	02	--	--	--	--	--

All the patients came with lump as primary complaints except in cases of duct papilloma, in which patient came with nipple discharge as a primary complaint. The second most common feature was pain seen in remaining patients while patients of breast carcinomas had noticed retraction of nipple.

Table 3: Common presenting symptoms in different lumps histopathologically proved

Diagnosis	Lump	Pain	Nipple Retraction	Skin Involvement	Nipple discharge
Carcinoma	42	20	24	16	2
Fibroadenoma	66	12	-	-	-
Fibroadenosis	4	4	-	-	-
Inflammatory	6	34	-	-	-
Duct Papilloma	2	2	-	-	2
Male breast					
Gynaecomastia	8	6	-	2	-
Carcinoma	2	2	1	1	-

All the patients diagnosed as carcinoma are having metastasis in axillary lymph node; in only 2 cases were having the distant metastasis. In fibroadenoma, only two cases were having the lymph node involvement while 26 cases were lymph node involvement in inflammatory group.

Table 4: Clinically diagnosed distribution of cases studied

Clinical diagnosis	No. of cases	Percentage
Non neoplastic (n=52)		
Inflammatory	46	88.4%
Fibroadenosis	06	11.6%
Neoplastic (n=96)		
Fibroadenoma	86	89.5%
Duct Papilloma	02	2.1%
Gynaecomastia	08	8.3%
Malignant (n=52)		
Female	50	96.1%
Male	02	3.9%

In malignant group, male breast lumps 2 were clinically suspected of cancer. All these lumps were subjected to biopsy for histopathological confirmations of diagnosis. Out of 52 clinically diagnosed as carcinomas 50 were proved correct on histopathologically while 86 fibroadenomas diagnosed on clinical examination 2 turned out to be malignant on histopathology.

DISCUSSION

The present study is comprised of 200 cases of breast lump that were studied prospectively at tertiary health care centre situated in rural area. Carcinoma of the breast occurs mainly in the 4th and 5th decade. The disease occurs generally a decade earlier in Indians as compared to white population. Breast carcinoma is rare in males. We found 2 cases of carcinoma in males and 8 cases of gynaecomastia. Out of 52 cases of carcinoma 28 were having left breast involvement, 22 were having right breast involvement and 2 cases were having bilateral breast involvement. In the study by Nuruzzaman HSM, left breast was affected in 67% cases, 28% in the right breast and the rest had bilateral involvement.³ Classically there is a left sided predominance.² The side affection possibly does not have much effect so far the treatment and prognosis are concerned. In our study, retracted nipple was most common finding in carcinoma breast whereas 40 cases of carcinoma breast were having normal areola. Most common finding was a peau'd orange in cases of breast skin involvement. 68% among all cases of breast lump were having normal breast size. In Nuruzzaman HSM study, 71.66% cases presented with painless lump, 28.33% with painful lump, 20% with ulceration, 8.33% with nipple discharge and 40% with nipple retraction.³ Haagensen study shows that 75% to 80% of women suffering from carcinoma breast presents with a lump in the breast.⁴ Nair *et al* have shown that lump in the breast was the presenting symptom in 88%, ulceration 8% and nipple retraction in 8% cases.⁵ Another study was carried out by Vinod Raina *et al* in India, where 96% of the patient in premenopausal women presented with breast lump, 15.8% with pain and 4.4% came with nipple discharge.⁶ Upper outer quadrant was the most common site of involvement in cases of carcinoma. In a study by Nuruzzaman HSM, the most frequent site involved was upper outer quadrant (in 54%

cases). In 15% cases it was central, 13% in Lower outer quadrant, 10% in lower inner, 5% in upper inner quadrant and overlapping lesions were in 3% cases.³ A study carried out in Kerala, India has shown 31% of the growth in upper-outer quadrant, 8% in lower-outer quadrant, 11% in the upper-inner and 29% affected the whole breast.⁵ In present study, 34 cases presented when their lump size was more than 3 centimetre. 42 cases out of 52 were having diffuse margins as compared to 10 cases with well-defined margins. 28 cases were having hard palpable mass, 20 were having firm and 4 cases were having soft palpable mass among all the cases of carcinoma breast. Firm mobile mass was the most common finding on examination in cases of fibroadenomas. 22 cases of carcinoma breast were having skin involvement and only 2 cases had chest wall involvement suggesting advanced disease. A study carried out in USA by Swanson *et al* showed that 65.5% of the younger women presented with a lump more than 2 cm in diameter.⁷ Another study carried out by Raina V *et al* showed 74.1% patients presented with tumor size more than 2 cm but less than 5 cm and 12.3% with tumor size more than 5 cm.⁶ This shows that our patients present quiet late and with a higher stage of disease to a tertiary center. Palpable lump with nipple retraction was the most common finding on clinical examination in cases of carcinoma breast. Axillary group of lymph nodes were the most common lymph nodes involved in cases of carcinoma (44 cases). Only 6 cases were having cervical lymph node involvement, and 1 each were having other axilla involvement and distant metastasis. In the series by Nuruzzaman HSM, among the 60 patients, 52 patients had clinically palpable lymph nodes (86.66%). Among them 48% had one group of lymph node involved, 23% had two groups and 29% had more than two groups involved. The rest (13.33%) had no lymph node palpable clinically.³ Out of 200 cases 52 were suspected as

carcinomas and 86 were suspected as fibroadenomas. After FNAC 2 cases among suspected carcinomas were reported as fibroadenomas whereas 2 cases among suspected fibroadenomas were reported as carcinomas.

CONCLUSION

Patients of breast cancer are coming to a tertiary level hospital very late, mostly with clinical features of advanced disease. Early detection of carcinoma can avoid distant metastasis and advanced breast carcinoma. Only 1 patient in our study had distant metastasis and 1 patient had spread to other axilla. On clinical examination correct diagnosis was found in 96.2% of malignancy and 98.6% of benign lesions.

REFERENCES

1. National Cancer registry Programme Consolidated report of the population based cancer registries 1990–1996. Indian Council of Medical Research, New Delhi. 2001.
2. Kumar V, Abbas AK, Fausto N;Robbin's and Cortan Pathologic Basis of Disease, 7th edn.Elsevier Saunders,Philadelphia;2004:1129-1149.
3. Nuruzzaman HSM. Clinico-Morphological Pattern of Breast Cancer at In patient Department of Dhaka Medical College Hospital – Study of 60 Cases. J Shaheed Suhrawardy Med Coll 2015;5(2): 49-53.
4. Haagensen CD. Disease of Breast, 3rd ed. W.B. Saunders, Philadelphia: 1986.
5. Nair MK; Overall survival from breast cancer in Kerala, India, in relation to menstrual, reproductive and clinical factors. Cancer 1993;71:1791-6.
6. Raina V, Bhutani M, Bedi R, Sharma A, Deo SV, Shukla NK, Mohanti BK, Rath GK; Clinical features and prognostic factors of early breast cancer at a major cancer center in North India. Indian Journal of Cancer 2005;42(1):40-45.
7. Swanson GM, Haslam SZ; Breast cancer among young African-American women. American Cancer Society Journal, 2005; 97(1-suppl):273-279.

Source of Support: None Declared
Conflict of Interest: None Declared

