



AN ANALYSIS AND CLINICAL CORRELATES OF BREAST LUMPS

Arun S. Patil*

*Corresponding Author

Pravin Tungenwar

Amit Patil

KEYWORDS : Breast lump Benign Malignancy

INTRODUCTION

Breast lump is frequently the presenting complaint. A dynamic physiological change in female breast makes it prone to varied diseases, lump being the common one. Changes in the breast continue through out the life thus no age group is bar from the breast disorders. These lumps have two chief causes: benign and malignant breast disease. Breast tissue is naturally a glandular type of tissue ,almost all women develop nodules or lumps in their breasts at some time or another .Lumps, also called ``dominant lumps, ``feel different from surrounding tissue (AMA 1989).Some may be quite large, while others are small and even diffuse over time(Lark 1996). Fibrous tissue in the breast may be even mistaken for a lump.

Importance of breast lump as a major health problem is highlighted by the fact that breast carcinoma is the second commonest carcinoma in females.

Better comprehension of whole picture requires analysis of many factors known to influence the outcome. These include age, marital status, and menstrual status, breast feeding and varied clinical presentations.

In the present study an effort has been made to find out the role of some of these factors in the outcome of disease.

Diagnosis of breast lump is made by a detailed history, careful clinical examination including examination of both breasts, regional lymph nodes and systemic examination.

Before arriving at the diagnosis, examination is supplemented by investigations like fine needle aspiration cytology, mammography, ultrasound and biopsy.

Multi factorial approach has led to extensive transitions in decision making and management of breast lump over the past century, which continue to evolve.

AIMS AND OBJECTIVES

1. To study the age wise distribution of benign and malignant breast lumps.
2. To study the breast lump in relation to menstrual, marital status of patient.
3. To study breast lump in relation to breast feeding, family history and oral contraceptive usage.
4. To study the breast lump in relation to various clinical presentations, size, side and quadrant of involvement.
5. To study breast lump in relation to lymph node involvement, metastases and stage of involvement

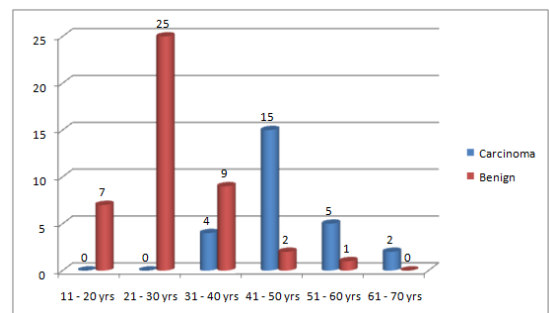
MATERIALS AND METHODS

The study comprising of 70 cases of breast lump was undertaken at premier tertiary care hospital and teaching institute in Mumbai.

Methods for assessment of breast lump were anamnesis and physical examination, which was supplemented with radiological investigations. Finally a tissue diagnosis was obtained with Fine needle aspiration cytology. However a biopsy for pathological evaluation should be performed for exact diagnosis.

OBSERVATIONS

SHOWING DISTRIBUTION OF CASES ACCORDING TO AGE



SHOWING TO DISTRIBUTION OF CASES ACCORDING TO SEX

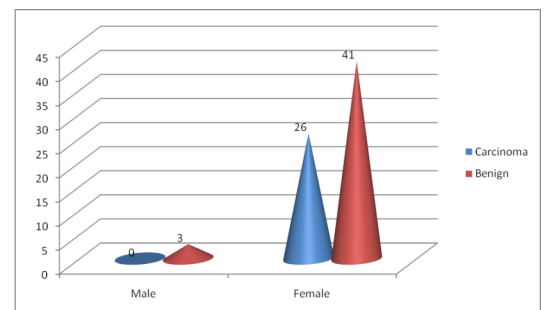


TABLE NO. 1
SHOWING DISTRIBUTION OF CASES ACCORDING TO HISTOLOGY

Malignancy	No. of patients	%
Carcinoma (infiltrating)	20	76.9
Medullary	6	23.1
Benign		
Fibroadenoma	26	59.1
Breast abscess	1	2.3
Tuberculosis	1	2.3
Galactocele	2	4.5
Fibroadenosis	9	20.5
Cystosarcoma phyllodes	2	4.5
Gynaecomastia	3	6.8

In our study all subjects with Ca and around 87 % of patients with benign lumps were married. More than 70% of patients with menopause between age group of 45 - 49 years, 50% of Ca breast patients attained their menopause more than 7 years, whereas only 2 patients with benign lumps were menopausal and both of them presented after 7 years of menopause. Positive family history was noted in around 15% and around 11% of patients of malignancy and benign lumps respectively.

Around 45% of patients with benign lumps presented with pain, and fibroadenosis being the most common. All cases of malignancy were

Ca with more than 75% belongs to infiltrating group. Of the benign lumps, most common was fibroadenoma followed by fibroadenosis.

**TABLE NO. 2
DISTRIBUTION OF CASES ACCORDING TO LUMP SIZE AT PRESENTATION**

Size	Carcinoma		Benign	
	No.	%	No.	%
0 – 2 cm.	1	3.8	4	9.1
2 – 5 cm.	5	19.2	25	56.8
5 – 10 cm.	17	65.4	10	22.7
>10 cm.	3	11.5	5	11.4

Lump size of 5 – 10 cm. was the most common in cases of Carcinoma.

DISCUSSION

This study comprising of 70 cases of breast lump was undertaken at a Premier Tertiary Care Hospital in Mumbai, Carcinoma of breast is fairly common in our country. The other lesions of breast are equally important. They at times simulate so much with malignancy that it is often difficult to differentiate the two lesions on clinical grounds. One reason for interest in the epidemiology of benign breast disease is to learn whether it shares epidemiological features with cancer of the breast.

In the present study 85% of cases were married. Only four patients in the benign and none in the malignant group were unmarried.

The onset of menarche is at an earlier age in India.

Association of increased breast cancer risk with early menstruation has been reported in many case control studies.

In our study, 16 patients were post menopausal, of which 14 subjects were having Ca. Most of these patients attained menopause in the age group between 45-49 years (78.6% of patients). Maximum patients of Ca breast presented within 1-3 years of menopause (around 43%).

There was a sharp rise of incidence of carcinoma breast in the patients after menopause. Incidence of carcinoma breast increase with age. In India the duration of breast-feeding is longer than in the affluent West. Epidemiological study conducted at various centre in India (1980) has revealed that although the mean breast-feeding duration in India was 1 year in some parts, patient's breast fed for 2-5 years (mean 2.5). The study came up with a figure of 19% who had not breast-fed since it was generally presumed that nearly all Indian women breast-feed their children.

In our study a positive family history was seen in 15% of malignant cases and 11% of the benign cases.

Overall 26 of patients with 40% belonging to benign category and 30% with malignant lumps showed a positive history of oral contraceptive pill intake. Most of the Ca cases were seen in sizes of 5-10 cm. whereas in cases of benign lumps the size group was 2-5 cm.

As per tissue diagnosis is concerned, the most common breast lump in our study turned out to be fibroadenoma (37% of all tumours and 59% of all benign lumps). In cases of benign lumps it was followed in order of frequency by fibroadenosis, gynaecomastia, galactocoele, cystosarcoma phyllodes, breast abscess and tuberculosis. Incidence of carcinoma breast was 37% of all lumps. Fibroadenoma was by far, the commonest benign tumour seen in the younger age group as has also been observed by others

In our country the average size of the tumour is comparatively bigger as compared to western countries. This is probably due to the late visit to the hospital by our patients as they are completely ignorant about the importance of the disease and try to hide the lump unless it has acquired a sufficient size.

SUMMARY AND CONCLUSION

Relevant literatures were reviewed, observations were systematically recorded and critically analyzed and the following conclusions drawn:

1. Benign breast lumps are more common than malignant ones.
2. Benign lump was more common in 21-30 years age group whereas Carcinoma in 41-50 years age group. Breast cancer occurred at a

younger age as compared to women in west with more than 70% of patients being below 50 years of age.

3. Protection through marriage against carcinoma was not evident as most of the Indian women get married and few remain single. No relation of benign lump to marital status was seen.
4. Menarche, age at first childbirth, parity and breast-feeding did not show textbook correlation with breast lump in this study.
5. Incidence of breast Ca was more common in postmenopausal women whereas that of benign lump was in menstruating women.
6. Positive family history was seen in only 15% and 11% of cases of malignant and benign breast lumps. No correlation with hormonal usage in form of oral contraceptive pill was seen.
7. Most common carcinoma was infiltrating ductal Ca. and most common benign lump was fibroadenoma.

REFERNCES

1. Anderson, E. Reed S. C. Housh R.A. and Oliver C.P. "Possible relationship between menopause and age at onset of breast cancer", *Cancer* 3, 410-414, 1950.
2. Black MM: Opler S.R.: Speer F.D.: Survival in breast cancer cases in relation to the structure of the primary tumour and regional lymph nodes *Surg. Gynaec. Obst.* 100: 543-551, 1955.
3. Bland KI, Frykberg ER: In situ carcinoma of the breast: Ductal and lobular cell origin, in Cameron JL (ed): *Current surgical Therapy*, 4th ed. St. Louis, Mosby-Year Book, 1992, pp. 612-621.
4. Bloom H and Richardson TG: Prognosis in carcinoma breast. *Brit. J. Cancer*; 4:259-68, 1960.
5. Boova RS, Roseann B et al: Patterns of axillary nodal involvement in breast cancer: Predictability of level one dissection. *Ann. Surg.* 196:642, 1982.
6. Clemmesen J, "Statistical studies in the aetiology of malignant neoplasms I, Review and Results" Munksgaard, Kobehavn, 1965.
7. Clemmesen J, "Carcinoma of the breast, symposium, Results from statistical research" *Brit. J. Radiology*, 21:583-590, 1958.
8. Dupont WD, Page DL: Risk factors for breast cancer in women with proliferative breast disease *N. Engl. J. Med.* 312:416, 1985.
9. Fechner RE: Fibroadenoma and related lesions in Page DL, Anderson TJ: *Diagnostic Histopathology of the Breast*, Edinburgh Churchill Livingstone, 1987, pp 72-88.
10. Gloeckler Ries L, Pollack ES, Young L. Cancer patient survival: surveillance, epidemiology and end results program, 1973-79. *J. Natl Cancer Inst.* 1983; 70: 693-707.
11. Haagensen CD: *Diseases of the Breast*, 3rd ed., Philadelphia, WB Saunders, 1986.
12. Haagensen CD, Adenofibroma In: Haagensen CD, editor, *Diseases of the Breast*, 3rd ed. Philadelphia: WB Saunders, 1986; 267-83.
13. Kalache A McPherson K, et al.: Oral contraceptives and breast cancer *Br. J. Hosp. Med.* 30: 278, 1983.
14. Kline TS: *Handbook of Fine Needle Aspiration Cytology*, CV Mosby Co., St. Louis, 1981; 117-8.
15. Lagios MD, Westdahl PR et al.: Duct carcinoma in situ; Relationship of extent of noninvasive disease to the frequency of occult invasion, multicentricity, lymph node metastases, and short term treatment failures *Cancer* 50: 1309, 1982.
16. Lilienfeld, A.M.: "The epidemiology of breast cancer", *Cancer Res.* 23, 1503-1513, 1963.
17. Malone KE, Daling JR et al.: Oral contraceptive in relation to breast cancer. *Epidemiol. Rev.* 15: 80, 1993.
18. Moskowitz M, Gartside P. et al: Proliferative disorders of the breast as risk factors for breast cancer in a selfselected screened population: Pathologic markers, *Radiology* 134: 289, 1980.
19. Watt -Boolsen S, Rasmussen NR et al: Primary parareolar abscess in the no lactating breast: Risk of recurrence *Am J Surg* 153:571, 1987.
20. Breast lump, a rare presentation of costochondral junction tuberculosis: a case report, by Sanjay Jain, Adesh Shrivastava and Dinesh Chandra, Department of General Surgery, Gandhi Medical College and Associated Hospitals, Bhopal-462001, Madhya Pradesh, India, *Cases Journal* 2009, 2:7039doi:10.4076/1757-1626-2-7039
21. Lynch HT, Marcus JN et al.: Familial breast cancer, family cancer syndromes, and predisposition to breast neoplasia, in Bland KI, Copeland EM III: *The Breast: Comprehensive Management of Benign and Malignant Diseases*. Philadelphia, WB Saunders, 1991, chap. 13.
22. Mammary tuberculosis – importance of recognition and differentiation from that of a breast malignancy: report of three cases and review of the literature, Müfide Nuran Akçay , Leyla Sağlam, Pınar Polat ,FazlıErdoganAlbayrak and Stephen P Povoski , *World Journal of Surgical Oncology* 2007, 5:67doi:10.1186/1477-7819-5-67