

A Clinicopathological Study of Breast Lumps in Females

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Abstract:

Introduction: The term breast lump encompasses a heterogeneous clinical and pathological condition which range from inflammatory to neoplastic conditions. There is increasing interest in breast lumps due to high incidence, patients demanding investigations and treatment for symptoms and the question of premalignant disorder where surveillance is beneficial.

Material & Methods: A descriptive study conducted in Guntur medical college, Hospital, Guntur. All patients diagnosed breast disease are histopathologically confirmed irrespective of age. Once the patients are admitted, a detailed history was taken and they were subjected to routine blood and urine examination and specific relevant investigations like FNAC, ultrasonography and mammography of the breast.

Results: A total of 125 cases of breast lumps were found of which fibroadenoma forms the most common breast disease which is accounting for about 52(41.6%) cases, followed by fibrocystic disease accounting for 39(31.2%) cases. 66 cases of breast lumps are on the right side and 53 cases on the left and 6 cases are bilateral. Out of 125 cases, 89 underwent surgery and 36 cases were managed conservatively. Surgery is done for 89 cases.

Conclusions: Fibroadenoma and fibrocystic diseases are the most common benign breast diseases. Majority of lumps are noticed accidentally by the patient. Majority of breast lumps are painless to present with. Surgery is the best treatment for benign breast disease and Excision will suffice in majority of benign breast lumps.

Keywords: breast lump, clinic pathological, carcinoma, treatment

Date of Submission: 15-08-2019

Date of Acceptance: 30-08-2019

I. Introduction

Mammary glands or breasts are a distinguishing feature of mammals^[1]. From puberty to death they are subjected to physical and physiological changes that relate to menses, pregnancy, gestation, lactation and menopause. The development and growth are under the control of various hormones. Breast lumps are localized swellings that feel different from the normal breast tissue. It is a symptom/sign for a variety of conditions of which most are non-malignant. Around 10% of breast lumps are breast cancers. Growing public awareness increased referrals to hospitals for breast symptoms and currently malignant to benign ratio of 1 : 10 is seen^[2].

The term breast lump encompasses a heterogeneous clinical and pathological condition which range from inflammatory to neoplastic conditions. There is increasing interest in breast lumps due to high incidence, patients demanding investigations and treatment for symptoms and the question of premalignant disorder where surveillance is beneficial. Thus, it is an important area because of its incidence in the population at large and because of the concern it generates. Breast lumps are one of the most common reasons for surgical consultation. The majority ultimately proves to have a benign origin^[3].

Breast lesions may present with a variety of symptoms often confusing clinical evaluation leading to error in treatment of essentially benign conditions. The aim of this study is to assess the profile, presenting symptoms and various types of presentation of breast lumps. This clinico-pathological study of breast lumps which include 125 cases which presented to Government General Hospital, Guntur where all possible attempts to study the various aspects of the diseases and its management have been made.

II. Material & Methods

The present study —Clinicopathological study of breast lumps in females is a descriptive study conducted in Guntur medical college, Hospital, Guntur during the period from January 2017 to December 2018.

All patients diagnosed breast disease are histopathologically confirmed irrespective of age. This study includes various breast diseases presenting with a lump.

This study comprises of 125 cases of breast lumps which includes 52 cases of fibroadenoma, 39 cases of fibrocystic disease, 18 cases of ca breast, 4 cases of cystosarcoma phyllodes, 4 cases of hypertrophied axillary tail, 1 case of duct ectasia and 4 cases of antibioma, 2 cases of galactocele and one case of traumatic fat necrosis.

Once the patients are admitted, a detailed history was taken regarding lump, pain, nipple discharge, menstrual history, obstetric history, previous surgery if the patients have undergone, history of oral contraceptive pills. General physical examination done. A detailed local and systemic examination was carried out and clinical diagnosis was made.

Patients were subjected to routine blood and urine examination and specific relevant investigations like FNAC, ultrasonography and mammography of the breast. The excised specimens were sent for histopathological examination for confirmation of clinical diagnosis.

A detailed study was done about the cases, with regards to the age of the patient, sex, presenting symptoms and the treatment received. These were tabulated to give an idea about most common and rare benign breast disease and to detect them early by way of symptomatology and thus facilitating correct diagnosis for better management of patient. This study consists of 125 consecutive cases of breast lumps studied during the period of January 2017 to December 2018 in Guntur Medical College, Guntur.

INCLUSION CRITERIA

- Females aged 13 years and above presenting to Government General Hospital, Out Patient Department.
- Patients presenting with breast lumps, mastalgia and nipple discharge
- Patients with positive viral marker status are also included.

EXCLUSION CRITERIA

- Patients of age 12 years and below
- Patients lost to follow up
- Patients unwilling for inclusion into study
- Male patients

III. Observations & Results:

Most commonly affected age group of breast disease is 21-30 years, 35 cases (28%), followed by 31-40 years 30 cases (24%), 24 cases (19%) in the age group of 13-20 years. Majority of cases are of premenopausal age 94 cases (75.2%) and 31 are post-menopausal (24.8%).

In the present study, fibroadenoma forms the most common breast disease which is accounting for about 52 (41.6%) cases, followed by fibrocystic disease accounting for 39 (31.2%) cases.

Carcinoma accounts for 18 (14.4%) cases, 4 (3.2%) cases of cystosarcoma phyllodes, 4 (3.2%) cases of Antibioma, 2 cases of galactocele, 4 (3.2%) cases of Hypertrophied Axillary Tail, 1 (0.8%) case of ductal ectasia and 1 (0.8%) case of TFN were found.

Table 1 : Various benign breast diseases in the present study

Type	No of cases	Percentage
Fibroadenoma	52	41.6%
Fibrocystic disease	39	31.2%
Carcinoma	18	14.4%
Phyllodes	04	3.2%
Hypertrophied Axillary Tail	04	3.2%
Duct ectasia	01	0.8%
Antibioma	04	3.2%
Galactocele	02	1.6%
TFN	01	0.8%
Total	125	100%

Out of 52 cases of fibroadenoma, 20 cases between 1-3 months, 14 cases between 4-6 months, 11 cases between 7 months – 1 year, 5 cases presented between 1-2 years and 2 cases between 2-4 years. Out of 39 cases of fibrocystic disease, 16 presented between 1-3 months, 10 cases between 4-6 months, 6 cases between 7 months – 1 year, 3 cases between 1– 2 years, and 4 cases in between 2-4 years.

With regards to mode of presentation, all breast disease presented with lump. 83 lumps are painless of which, 36 cases are fibroadenoma, 23 cases are fibrocystic diseases, 14 cases are Ca breast, 2 cases are galactocele, 4 cases are CSP, 4 cases are HAT. In 42 cases, lumps are painful, of which, 16 cases have fibroadenoma, 16 are cases of fibrocystic diseases, 4 are Ca breast cases, 4 cases are with Antibiomias and one is a case of TFN and one is a case of Duct ectasia.

In this study, 66 cases of breast lumps are on the right side and 53 cases on the left and 6 cases are bilateral.

Quadrant topography of breast diseases:

In present study, most cases, 47 cases are found in the UOQ, followed by 27 cases found in more than one quadrant, followed by 22 cases in LOQ. In this study, fibroadenomas are found 19 cases are found in the UOQ followed by 14 cases in the LOQ. Fibrocystic diseases is found more common in the UOQ, 12 cases (30.7%). Carcinoma more often is found in the UOQ, 9 cases (50%) 3 (75%) cases of phyllodes occurred in more than one quadrant. All cases of HAT occurred in the UOQ. Duct ectasia is found centrally and TFN occurred in more than one quadrant. Antibiomias more commonly occurred centrally, 2 cases (50%). Galactocele is found, one in UOQ and one in UIQ.

Size of the lumps: 68 case are of the size 3-4 cm while 36 cases are of the size 1-2 cm, and the rest 21 cases are of the size 5 cm or more. Most cases are of the size between 3-4cm, 25 cases of fibroadenoma, 25 cases of FCD and 15 cases of Ca breast are of the size 3-4 cm.

Histopathology was done in 90 patients which revealed fibroadenoma in 32 cases, Ca breast in 15 cases, fibrocystic disease in 14 cases, Cystosarcoma phyllodes and Antibioma in 4 cases each. Galactocele was found in 2 cases. Ductal ectasia and TFN in 1 case each.

Treatment of breast diseases:

In this study, out of 125 cases, 89 underwent surgery and 36 cases were managed conservatively. Surgery is done for 89 cases. Out of these, 65 cases undergone simple excision or Enucleation of swelling, of which, out of which 48 are fibroadenoma and 14 cases are fibrocystic disease and 2 cases of galactocele and one case of duct ectasia (microdochectomy). 4 cases underwent simple mastectomy for phyllodes tumor. Antibiomias and Traumatic fat necrosis are treated with wide local excision. 15 cases of Carcinoma breast had Modified Radical Mastectomy while the remaining three cases were managed with NACT.

Table 2 : Treatment of breast diseases in present study

Diagnosis	Surgical	Conservative
Fibroadenoma	48	4
Fibrocystic disease	14	25
Ca Breast	15	3 (NACT)
Phyllodes	4	--
HAT	--	4
Duct ectasia	1	--
Antibioma	4	--
Galactocele	2	--
TFN	1	--
Total	89	36

IV. Discussion

The maximum number of breast lumps (52%) were presented in age group of 21-40 years of age group. This corresponding to Ranabhat S et al (2015)^[4] study in which 55.4% patients were presented within the age group of 20-40 years. Another study by Sheela N. Kulkarni et al^[5] showed that maximum number of their cases (70%) were between 20-40 years age group. Hadfield reported that majority of the patients of fibrocystic diseases were presented about 40 years of age group^[6].

Proportion of cases

Out of 125 cases in this study, Fibroadenoma forms the most common breast disease which is accounting for about 41.6% cases, followed by fibrocystic disease accounting for 31.2% cases then carcinoma accounting for 14.4% cases, 4 (3.2%) cases of phyllodes tumor, 4 (3.2%) cases of antibioma, 4 (3.2%) cases of Hypertrophied Axillary Tail, 1 (0.8%) case of ductal ectasia, 1 (0.8%) case of galactocele.

These are the results of proportion of cases in various other studies in comparison to the present study. The various studies mentioned are Ranabhat S et al (2015)^[4], Sheela N. Kulkarni et al (2016)^[5], Shashikala V et al (2016)^[7], Savita Bharat Jain et al (2015)^[8], Rakesh Sharma et al (2016)^[9] and Rajendra Kumar et al^[10].

With regards to malignancy, 14.4% of all the cases of the present study is malignancy compared to 8% in Ranabhat S et al^[4] and 19% in Savita 80 et al and more cases in the present study are in the age group of >60 years and more cases are seen in the age group 51-60 years in Ranabhat S et al^[4].

In this study, out of 125 cases, 66 cases on right breast (53%), 53 cases on left side (42%) and 6 cases presented as bilateral involvement (4.8%). This corresponds to most of the studies which states that right breast is commonly involved with lesions compared to left breast.

In the present study most cases, 47 (37.6%) cases involve the UOQ followed by 27 (21.6%) cases occupying more than one quadrant followed by LOQ 22 cases (17.6%) which was similar to findings by Rakesh et al^[9].

Proportion of benign and malignant cases in present study (85.6% benign & 14.4% malignant) was comparable with other studies such as Ranabhat et al^[4] (91% benign & 9% malignant) and Savita et al^[8] (80% benign & 20% malignant)

Size of the lumps: 68 (54.4%) cases of the present study are of the size 3-4 cms, 36 (28.8%) cases are of the size 1-2 cm and 21 (16.8%) cases are of the size more than 5cm. In Rakesh et al^[9] sizes of the lumps are as 34%, 38%, 28% respectively.

Patients were managed either surgically or conservatively depending upon their diseases. 89 cases (71.2%) underwent conservative management and 36 (28.8%) were treated surgically as compared to 75% cases underwent conservative management and 25% underwent surgical management in the study done by Savitha et al^[8].

V. Conclusions

Majority of the breast diseases occurs in younger age group 21-30 years. Most common presenting complaints are lump in the breast, pain in the breast followed by nipple discharge. Fibroadenoma and fibrocystic diseases are the most common benign breast diseases. Majority of lumps are noticed accidentally by the patient. Majority of breast lumps are painless to present with. Benign breast diseases most commonly affects upper and outer quadrant. Carcinoma of breast is more common in older females. Invasive ductal carcinoma is the most common type of carcinoma of breast and nonspecific type is the most common subtype. Conservative treatment is one of the options in young women who are clinically have < 2 cm breast lumps and cytologically confirmed cases of fibroadenoma and fibrocystic diseases. Surgery is the best treatment for benign breast disease and Excision will suffice in majority of benign breast lumps.

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Dr. Gaddala Penchalaiah. "A Clinicopathological Study of Breast Lumps in Females." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 8, 2019, pp 54-57.