

Frequency of Benign Breast Diseases in Female Patients Presenting With Breast Lumps - A Study at Sir Ganga Ram Hospital, Lahore

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Objective: To determine the frequency of benign breast diseases in female patients in our setup. **Design:** Prospective descriptive study. **Place and duration of study:** The study was carried on female patients presenting at surgical out door of Sir Ganga Ram Hospital, Lahore during one year i.e. January 2001 to January 2002. **Patients and methods:** Two hundred female patients presenting with breast lumps at surgical out door of Sir Ganga Ram Hospital, Lahore during one year were studied. All the patients were examined clinically with special emphasis on breast, axilla and supra clavicular fossae. Basic laboratory investigations including blood complete examination, urine complete examination and chest X -ray were done for all the patients. Breast imaging and FNAC of lumps were also done. Final diagnosis was based upon histological examination of the tissues biopsied from the lump. After collecting data, written in proforma, window SPSS software was used to analyze the results. **Results:** This study shows a high frequency of fibroadenoma (45%) in Pakistani females. Fibrocystic disease is second in frequency and accounts for 36% patients. 8% patients had intraductal papilloma and three percent suffered from duct ectasia. 5% patients had other conditions related to breast including two patients presenting with pre histological diagnosis of fibrocystic disease who turned out to be malignant after histopathology. Most of the patients had age range of 20-29 years. **Conclusion:** Fibroadenoma is the commonest of all benign breast diseases in Pakistani women. Fibrocystic change is the second in this regard. Benign lesions of the breast can resemble its carcinoma on clinical examination.

Key Words: Benign breast disease, Fibroadenoma, Fibrocystic change, intraductal papilloma.

Breast presents a plethora of benign lesions. This includes tumors of the breast as well as many aberrations of normal development (ANDI), nowadays considered separately¹.

Very little work has been done regarding benign breast diseases especially its frequency or incidence and the factors associated with it., This study assesses the frequency of different benign breast lesions in our setup. This study was carried out in Sir Ganga Ram Hospital, Lahore. Main emphasis is laid down upon finding the frequency of benign breast diseases like fibroadenoma, fibrocystic disease (change), duct ectasia and intraductal papilloma due to their clinical resemblance with carcinoma of the breast. But it goes without saying that any mass in the breast can cause great anxiety to the patient. In a nutshell, many benign lesions resemble carcinoma on clinical examination and thus' necessitate a thorough physical examination of the patient. Early detection of any breast lesion decreases morbidity and mortality².

Material and methods:

Patients: Two hundred female patients presenting with breast lumps at surgical out door of Sir Ganga Ram Hospital, Lahore during one year i.e. January 2001 to January 2002 were studied. All the patients were examined clinically with special emphasis on breast and axilla .

Inclusion Criteria:

1. Postmenopausal and premenopausal female patients with palpable breast masses (lumps) presenting in surgical OPD during January 2001 to January 2002.
2. Female patients with breast lumps not disappearing during menstrual cycle (noncyclical).

Exclusion criteria: Clinically obvious malignant lumps.

Methods: The patients were selected at the day of their presentation in the out patient department under supervision of the consultant surgeon.

All patients in the study were examined clinically. Their breasts, as well as lymph node status was checked out clinically. Basic laboratory investigations including blood complete examination, urine complete examination and chest X-ray was done for all the patients. Breast imaging including ultrasonography and mammography were done where required. FNAC (fine needle aspiration cytology) of the breast lumps were also done. This is a simple technique used to see the cells of a mass under microscope. The patients presenting with nipple discharge underwent cytological analysis of discharge. In some cases like nodularity of major part of the breast, true cut or incision biopsy was performed. Final diagnosis was based upon histological examination of the tissues biopsied from the lump. After collecting data on a proforma, window SPSS software was used to analyze the results.

Results:

Main emphasis in this study is laid down upon finding the frequency of benign breast diseases like Fibroadenoma, fibrocystic disease (change), duct ectasia and intraductal papilloma due to their clinical resemblance with carcinoma of the breast. But it goes without saying that any mass in the breast can cause great anxiety to the patient.

Two hundred female patients diagnosed clinically as having benign breast disease in the out patient department of Sir Ganga Ram Hospital, Lahore during one year i.e.

January 2001 to January 2002, were selected for the study. Out of those 200 cases, ninety patients (45%) had fibroadenoma, seventy eight patients (39%) had fibrocystic disease or fibrocystic change, sixteen (8%) patients had intraductal papilloma, six (3%) had duct ectasia and ten (5%) patients had other forms of the breast disease. These included abscess, lipoma, fat necrosis, phylloides tumor, and carcinoma breast (Table 1)

Age distribution of the patients of benign breast disease in this study is shown in the table. Most of the patients (84 patients) belonged to the age group of 20-29 years. Mean age of the patients suffering from benign breast disease was 32.41±9.86 years (Table 2).

In this study thirty nine percent(78) patients had fibrocystic disease. The range of age of the patients having fibrocystic disease was 18-58 years. Fifty two (66.7%) patients with fibrocystic change had mastalgia which was associated with menstrual cycle also. Nodularity of the breast increased during proliferative phase of menstrual cycle and vice versa.

In total 94(47%) patients had the history of use of contraceptive pills. Out of seventy eight patients with fibrocystic disease, forty seven (60.3%) had the history of use of contraceptive pills. This figure shows some relationship of fibrocystic disease with these pills.

More over in the patients with fibrocystic disease, fifty two patients (66.66%) had premenstrual mastalgia. In these fifty two patients, thirty (57.69%) had used contraceptive pills (Table 3).

Out of 78 patients with fibrocystic disease, fifty nine (75.6%) were multiparae. 25.6% had three children and 23.1% had two children.

Nipple discharge was associated with 44.9% cases(35 patients) of fibrocystic change. The color of the discharge was serous or blood stained. Six patients (3%) were diagnosed as suffering from duct ectasia. Nipple retraction was a common finding.

The biopsies of sixteen patients(8%) were histologically diagnosed as intraductal papilloma. All of them presented with a serous or blood stained discharge with a sub areolar mass. Mean age of these patients was 33.81years with age range of 20-56 years.

Ten (5%) patients had other forms of the benign breast disease, including two(1%) patients who were diagnosed as fibrocystic change but turned out to be suffering from carcinoma histologically. One(0.5%) patient had fat necrosis, one(0.5%) had phylloides tumor, one(0.5%) had lipoma, and five(2.5%) patients were suffering from breast abscess.

In all the patients with benign breast disease, 187 patients(93.5%) were pre menopausal and 13 patients (6.5%) were post menopausal (Table 4). Ninety eight patients(49%) had family history of breast disease. And this shows strong association with genetic make up of the individual with breast disease.

Table 1: Frequency of different benign breast diseases (postoperative diagnosis) (n=200)

Disease	Frequency	%age
Abscess	5	2.5
Carcinoma	2	1.0
Duct ectasia	6	3.0
Fat necrosis	1	0.5
Fibrocystic Disease	78	39.0
Fibroadenoma	90	45.0
Intraductal Papilloma	16	8.0
Lipoma	1	0.5
Phylloides Tumor	1	0.5

Table 2 Age distribution of benign breast diseases (n=200)

Age group	No. of pts.	%age
10-19	05	2
20-29	84	42.
30-39	57	28.5
40-49	37	18.5
50-59	18	9

Minimum age (years): 15, Maximum age (years): 58
Mean ± SEM 32.4±9.86

Table 3: Correlation of premenstrual mastalgia and contraceptive pills intake in patients of fibrocystic change

Use of contraceptive pills	Premenstrual Mastalgia		
	Present	Absent	Total
Not used	22	09	31
Used	30	17	47
Total	52	26	78

Sensitivity= 0.42, Specifity= 0.65, Positive predictive value= 0.71
Negative predictive value = 0.36

Table 4: Pre or post menopausal patient (n=200)

		%age
Postmenopausal	13	6.5
Premenopausal	187	93.5

p < 0.01

Discussion:

Benign breast disease is the most frequent cause of anxiety in female patients with breast lumps³. In the Kings College Hospital Breast Clinic, a study was conducted on breast conditions and 80% of patients with breast symptoms had benign diseases⁴. The aim of treatment of benign breast disease is to exclude cancer and once this has been done, to treat any remaining symptoms.

The present study shows that out of 200 patients studied, 90(45%) had fibroadenoma, 78(39%) had fibrocystic change or disease, 16(8%) had intraductal papilloma, 6(3%) had duct ectasia and 10 patients (5%) were suffering from other diseases of the breast.

In a study carried out in India, by Sandhya P Iyer and M A Gore, fibroadenoma was 35%, fibrocystic disease 28.33%, intra ductal papilloma 1.67% and periductal mastitis was noted in 5% cases⁵ This study was carried out in Mumbai and shows results almost similar to those of our study.

A case control study of benign breast diseases was conducted in Greater Boston in 1968-69. Fibroadenoma was the commonest and found during second decade of life, commonly in multiparae.

Only one study by Shukla and Kumar is a prospective study done in patients with benign breast conditions presenting in the Department of Surgery, Varanasi between 1985-87. Ninety percent patients in this study were less than 40 years of age. Fibroadenoma was the commonest finding⁶.

A retrospective study was carried out by McFarlane ME, in the Department of Surgery, University Hospital, Kingston, Jamaica⁷. Here benign breast diseases were studied in Afro-Caribbean population to define the patterns of disease encountered. Of the cases reviewed in this study (333 patients over two years), the majority of benign breast lesions were due to fibroadenoma (33%) and fibrocystic disease (41%). This is consistent with our study. In this study, intraductal papilloma which accounted for 6.7% was the next in frequency. This is also very much similar to that found in our study (8%). Mammary duct ectasia was found in eight patients (3%) and is equal to ours.

The presence of fibroadenomas diagnosed clinically by ultrasound or mammography, in women aged 18-25 years and beyond can create perplexing diagnostic dilemmas. Should the lesion be removed or observed? Women with complex fibroadenomas, sclerosing adenosis, epithelial calcification, or papillary apocrine changes have a two to three fold increased risk of breast cancer⁸. Thus a clinical diagnosis of fibroadenomas alone is unreliable and does not exclude malignancy even in younger women⁹.

In the same context, Carty NJ et al performed a study in breast unit of Royal South Hants Hospital, Southampton. They showed that expectant management policy of fibroadenoma does not result in misdiagnosis of carcinomas. No patient developed carcinoma at the site of fibroadenoma in their study¹⁰. In contrast, fibrocystic disease or change has a high incidence of malignant potential. It is due to its association with moderate risk lesions like atypical hyperplasia¹¹.

Nipple disorders can be caused by benign or malignant disease. For some women, nipple retraction or inversion is normal. Duct ectasia is a more frequent cause of nipple retraction than cancer (Dixon and Sainsbury.)¹². The importance of nipple discharge for both the patient and the physician is the possible association of this condition with an underlying carcinoma. Serous, serosanguinous and bloody nipple discharges mandate evaluation⁸. Most of the patients who present with nipple

discharge without underlying mass in the breast can be treated conservatively¹³.

Among women who practise breast self-examination (BSE), breast cancers and other lesions may be detected when they are at an earlier stage and are smaller than in women who do not practice breast self examination. Women who choose to practise BSE should be informed that its efficacy is unproven and that it may increase their chances of having a benign breast biopsy¹⁴.

Conclusion:

- Benign breast diseases are common in female patients.
- Fibroadenoma is the commonest of all benign breast diseases in Pakistani women. Fibrocystic change is the second in this regard.
- Benign lesions of the breast can resemble its carcinoma on clinical examination.

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