PATTERN OF PRESENTATION OF BREAST DISEASE AT SURGICAL OUTPATIENT CLINIC OF A MEDICAL COLLEGE IN NORTH EAST, INDIA

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ABSTRACT

BACKGROUND

Benign breast diseases encompass a wide range of clinical and pathologic entities and globally they are the most common lesions accounting for 90% of the clinical presentation related to breast, but much concern is given to malignant lesions of the breast. The clinician must differentiate between them and give appropriate treatment for each case and avoid unnecessary longterm followup.

The objective is to study the pattern of presentation of breast disease in different age groups attending surgical outpatient clinic.

MATERIALS AND METHODS

This is a descriptive study of 302 females with breast symptoms who presented in surgical outpatient clinic at a state medical college located in the capital city of a north eastern state of India from 1st April 2015 to 31st March 2017.

RESULTS

Out of 302 cases, 210 (69.54 %) were benign followed by 75 (24.83%) inflammatory and 9 (2.98%) cases of malignant lesions. The overall mean age of patients with breast lesion was 32 ± 11.29 SD. Fibroadenoma was the most common condition in benign breast disease with 82 (27.15 %) cases and with mean age of 29.25 ± 9.74 years.

CONCLUSION

The commonest benign breast lesion encountered in surgical practice is fibroadenoma and the peak age of presentation is the second decade of life. The commonest mode of presentation in patients with breast disease is the palpable breast lump followed by mastalgia. Triple assessment plays a significant role in diagnosis and evaluation of breast disease.

KEYWORDS

Breast Disease, Benign Breast Disease, Triple Assessment of Breast.

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BACKGROUND

The breast is an appendage of skin and is a modified sweat gland. It is composed of glandular tissue, fibrous or supporting tissue and fat, which lies between the skin and the pectoral fascia, to which it is loosely attached. It extends from the clavicle superiorly down on to the abdominal wall, where it extends over the rectus abdominis, external oblique and serratus anterior muscles. The lifecycle of the breast consists of three main periods: development (early reproductive life), mature reproductive life and involution.¹

Breast problems for which patients consult doctors are breast pain, nipple discharge and palpable masses. Breast diseases include benign, inflammatory and malignant conditions. Benign breast diseases encompass a wide range of clinical and pathologic entities and globally they are the most common lesions accounting for 90% of the clinical presentation related to breast.^{2,3}

However, much concern is given to malignant lesions of the breast because breast cancer is the most common malignancy in women leading to death but it is important for pathologists, radiologists, and surgeons to recognise benign lesions, and also to distinguish them from in situ and invasive breast cancer. So, to assess a patient's risk of developing breast cancer to establish, an appropriate treatment modality for each case can be established and unnecessary longterm followup can be avoided.⁴ Also these benign conditions of breast deserve attention because of their high prevalence and their impact on a woman's life.

Fibroadenoma, a hyperplastic breast lobule is the most common benign breast lesion and the peak incidence is between the ages of 15 and 35 years. Breast cancer is the most commonly diagnosed cancer accounting for 23% of all diagnosed cancers and the most common cause of death in women worldwide.⁵ The risk factors for benign and malignant breast diseases include low parity, nulliparity, low age at first birth and late menopause.^{6,7}

There is no proper study on prevalence of breast disease and breast cancer in our region. So we aim to evaluate the spectrum of breast diseases in our institute and evaluate their association with presenting complaints of the patient, so that we can give proper education about risk factors and management strategies to avoid unnecessary interventions.

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Objective

To study the pattern of presentation of breast disease in different age groups attending surgical outpatient clinic.

MATERIALS AND METHODS

This is a descriptive study. In this study group, 302 females with symptoms of breast disease attending surgical outpatient clinic of Jawaharlal Nehru Institute of Medical Sciences, Imphal, Manipur from 1st April 2015 to 31st March 2017 were included. Patient data such as age, marital status, duration of symptoms, past history of breast disease, family history of breast disease, family, age at menarche, menstrual status and parity if married are noted.

Exclusion Criteria

1. Known case of carcinoma of breast.
2. Male patients.

A thorough history was obtained and general physical and local examination was carried out on every patient. Physical examination including clinical examination of breast, axilla, per abdomen and chest wall examination. Radiological evaluation with x-ray mammography or sonomammography (USG breast) and fine needle aspiration cytology (FNAC) of breast lump were done.

A proforma to collect data pertinent to the study was filled up for each patient. After collecting the data, results were analysed.

RESULTS

Sl. No.	Age	n= 302
	Range	14 - 72 Years
	Mean ($\pm$ SD)	32 $\pm$ 11.29

Table 1. Age Distribution

Sl. No.	Symptoms	n	%
1	Nipple discharge	14	4.64
2	Nipple retraction	8	2.64
3	Lump	170	56.30
4	Lump with pain	46	15.23
5	Pain	64	21.20

Table 2. Symptomology

Sl. No.	Disease	n	%	Mean Age & SD
1	Abscess	22	7.30	
2	Axillary LN	2	0.70	
3	Axillary tail	3	0.99	
4	Cancer	9	2.99	
5	Costochondritis	2	0.67	
6	Duct ectasia	6	1.99	
7	Fibroadenosis	78	25.82	35.74 $\pm$ 8.64
8	Fibroadenoma	82	27.15	29.25 $\pm$ 9.74
9	Keloid	1	0.33	
10	Lipoma	2	0.66	
11	Mastalgia	41	13.58	
12	Mastitis	51	16.89	
13	Paget disease of nipple	1	0.33	
14	Sebaceous cyst	2	0.67	
	Total	302	100	

Table 3. Diagnosis

Treatment	n=302	%
Surgical treatment	125	41.40
Medical treatment	177	58.60

Table 4. Treatment

Procedure	n=125	%
Excision/Lumpectomy	85	68
Incision and drainage	22	17.6
Modified radical mastectomy	8	6.4
Microdochectomy	10	8

Table 5. Surgical Procedure

Types of Medical Therapy	n=177	%
Evening primrose oil	87	28.81
Broad spectrum antibiotic	53	17.55
Danazol	11	3.64
ATT	6	1.99
MISC	20	6.62

Table 6

Type of Condition	n	%
Benign	210	69.54
Inflammatory	75	24.83
Malignancy	9	2.98
Miscellaneous	8	2.65
Total	302	

Table 7. Pattern of Breast Lump

In this study, 302 women presented with various breast symptoms in surgical outpatient clinic in 2 years review period. The overall mean age of patients with breast lesion was 32 $\pm$ 11.29 SD with a wide age range of 14 - 72 years (Table 1). Most common cases identified were benign (210, 69.54%) followed by inflammatory 75 (24.83%) and malignant lesions 9 (2.98%) (Table 7).

Fibroadenoma was the most common condition in benign breast disease with 82 (27.15 %) cases and it occurs mostly in 2nd decade of life with mean age of 29.25 $\pm$ 9.74 years followed by fibroadenosis 78 (25.82%) which occurs mostly in the 3rd decade of life with a mean age of 35.74 $\pm$ 8.64 years. (Table 3).

Mastitis was the most common inflammatory breast disease which accounts for 51 (16.89%) cases with the mean age of 25.78 $\pm$ 10.11 years followed by breast abscess 22 (7.30%) cases. (Table 3).

Most women presented with unilateral breast symptoms (250, 82.70%). Among the symptoms, breast lump (170, 56.30%) is the most common presentation followed by breast pain (64, 21.20%) and lump with pain (46, 15.23%) which is shown in Table 2. Total number of patients treated by medical therapy and surgical methods were 58.60% (n=177) and 41.40% (125) respectively as shown in Table 4. Most commonly prescribed medical therapy was evening primrose capsule (which was 28.81%, Table 6) and among the surgical methods, lumpectomy accounts for 68%. (Table 5). In this series, 64 women were married.

DISCUSSION

Benign breast disease is the most common breast pathology among women worldwide which is 10 times more common than breast cancer.^{8,9} Benign breast disease represents a spectrum of disorders that come to clinical attention as imaging abnormalities or as palpable lesions found on physical examination. Though they are not life threatening they cause a constant anxiety among women and also they can mimic breast cancer. A firm understanding and establishment of diagnosis of benign breast disease is important since sequential steps are necessary to distinguish lesions which impart a high risk of subsequent breast cancer from those which do not. Treatment in general is aimed at symptomatic relief and patient education.

In this study, out of a total of 302 patients, 216 patients came with complaints of breast lump (71.5%) accompanied with or without pain and 64 patients came with complaints of breast pain only which is similar to a study done by Hafiz Aslam et al in 2013.⁴

In this study, 82 (27.15) patients were diagnosed with fibroadenoma after triple assessment which is similar to other studies by Hatim KS et al, 2017 and Malik et al, 2010.^{10,11} In this study also, fibroadenoma as a painless lump is the most common presentation. Studies by Yusufu LM et al, 2003, Aslam et al, 2013 also showed similar findings.^{4,12}

The mean age of patient diagnosis as fibroadenoma in our study is 29.25 ± 9 which was similar to various studies (Malik et al, 2010 and AF Ale et al, 2016).¹³

The present study shows that 82.70% of cases had unilateral breast symptoms.

Medical and surgical management was adopted in 58.60% and 41.40% cases respectively in our study which is similar to an Indian study by Akshara Gupta et al where percentages of conservative and surgical management were 56.25% and 43.75% respectively.¹⁵

Our study showed that the incidence of inflammation of breast is 24.83% which is consistent with the studies done by Isaac U et al, 2005 and Hussain et al where the percentages were 25% and 21.8% respectively.^{16,17}

Mastalgia was seen in 13.58% as compared to 17.25% cases in studies by Sudershan Kapoor et al, 2016 and 11% in Khanzada et al, 2009.^{18,19}

Breast disease commonly presents as masses in the breast and differentiation between benign and malignant lesions clinically is sometimes difficult. The cause of high frequency of fibroadenoma among our population is not known, but the racial predisposition and hormonal imbalance may have some influence.

We advised short term followup of benign breast lesion and educated on self-breast examination and breast symptoms. Breast cancer patients in our study were referred to another centre for adjuvant therapy after upfront surgery in our institute and they were called for regular followup as recommended in NCCN guidelines.

CONCLUSION

We conclude from our study that the commonest benign breast lesion encountered in surgical practice is fibroadenoma (45%) and the mean age of presentation of fibroadenoma was 23.69 years. The commonest mode of presentation in patients with breast disease is palpable breast lump followed by mastalgia. Triple assessment plays a

significant role in diagnosis and evaluation of breast disease. Ultrasound of breast and FNAC are the easily available first line investigations for low risk palpable breast lump.

Our present study has a small sample size and inadequate followup records. Further studies with large sample size are needed for better understanding of the course of breast disease, its proper management and outcome.

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