EVALUATION OF BENIGN BREAST DISEASE IN RAMA MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE

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ABSTRACT

BACKGROUND

Benign breast disease includes a spectrum of lesions having a wide range of symptoms or may be detected as incidental finding on microscopic examination. The present study tries to classify and report the incidence of various benign breast diseases in relations to the key factors such as age, marital status, intake of oral contraceptives, menstrual cycle, pregnancy, lactation, socioeconomic status.

MATERIALS AND METHODS

The study was conducted on 153 female patients presenting with breast related problems. The patients were clinically examined and investigated and finally evaluated with reference to various key symptoms.

RESULTS

The major 'benign breast disease' in our study includes mastalgia, fibroadenoma and lactation-related inflammatory conditions. The pattern and incidence of these diseases had definite list of factors which affected it. For example- 1. Age of marriage. 2. Socioeconomic status. 3. Oral contraceptives.

CONCLUSION

Overall incidence of benign breast disease was 15.3%. Cyclical mastalgia was the major disease followed by unilateral fibroadenoma. Third common presentation was painless nodularity.

KEYWORDS

Mastalgia, Fibroadenoma, Mastitis, Oral Contraceptives, Benign Breast Disease (BBD).

HOW TO CITE THIS ARTICLE: Trivedi G, Bhargava R, Bhatnagar M. Evaluation of benign breast disease in Rama Medical College Hospital and Research Centre. J. Evolution Med. Dent. Sci. 2017;6(58):4313-4315, DOI: 10.14260/Jemds/2017/932

BACKGROUND

Breast is a dynamic organ involving a lot of morphological changes from menarche to menopause under the influence of hormones. The term "Benign Breast Disease" (BBD) encompasses a heterogeneous group of lesions that may present as a wide range of symptoms or it may be detected as incidental microscopic finding.

Up to 30% of females suffer from BBB in anytime of their life and this compels them to take the treatment. Early diagnosis and prompt treatment will alleviate patient's anxiety of having breast lump as carcinoma.

Aims and Objectives

The aim of this observational study is to see the patterns of benign breast disease, the mode of presentation and association with certain risk factors.

MATERIALS AND METHODS

The present observational study was conducted from November 2016 to May 2017 at Rama Medical College,

Kanpur in Surgical OPD on female patients presenting with complaints related to breast. The patients with any obvious cancer, biopsy proven, elsewhere treated or operated for malignant disease were excluded from this study.

Assessment included detailed history about symptoms and their duration, menstrual patterns, pregnancy, lactation, OCP intake. Followed by clinical examination and use of imaging technique such as USG and mammography, histopathological confirmation was done with FNAC, core needle biopsy and excision biopsy. Patients were followed up throughout the entire course of diagnosis and management.

RESULTS

The observations were tabulated to reach the conclusions and they were compared with other contemporary studies. The patients were broadly divided into 3 groups according to chief presenting complaints-

1. Mastalgia: Cyclical & noncyclical with nodularity.
2. Fibroadenoma & Painless nodularity.
3. Miscellaneous: Breast abscess and other inflammatory conditions; galactocoele; traumatic fat necrosis; Phyllodes tumours; Mondor's disease; nipple discharge.

Total 153 Female Patients Attending the Surgical OPD were Observed According to the Following Protocol:

1. Particulars of patient.
2. Chief complaints.
3. Obstetric and gynaecological history.
4. Medical history.

Financial or Other, Competing Interest: None.

Submission 14-05-2017, Peer Review 08-07-2017,

Acceptance 14-07-2017, Published 20-07-2017.

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DOI: 10.14260/Jemds/2017/932

5. Family history.
6. Clinical breast examination.
7. Investigation.

An observational study was conducted and the important relevant observations have been tabulated accordingly in following tables.

Total no. of patients observed	1000
No. of patients with benign breast disease	153
Incidence	15.3%
Table 1. Incidence of Benign Breast Diseases	

Diagnosis	No. of Patients	Percentage (%)
Mastalgia	91	57.96
• Cyclical	58	67.74
Associated nodularity	16	27.6
• Noncyclical	33	36.26
• Associated nodularity	7	21.21
Painless nodularity	24	13.38
Fibroadenoma	25	15.92
Breast abscess	11	7.0
Miscellaneous		
• Cyst	2	1.27
• Tubercular abscess	2	1.27
• Galactocoele	2	1.27
• Traumatic fat necrosis	1	2.6
• Phyllodes tumour	1	0.6
• Mondor's disease	1	0.6
Table 2. Frequency of Benign Breast Diseases		

Age Range (Years)	Mastalgia		Painless Nodularity	Fibroadenoma	Breast Abscess	Miscellaneous
	Cyclical	Noncyclical				
<20	03	1	2	2	1	1
21-30	14	3	8	14	2	2
31-40	32	17	10	8	5	3
41-50	09	9	1	1	3	1
51-60	-	3	-	-	-	2
Table 3. Age range of Patients						

Majority of patients were in 31-40 years age group (47.8%). However, fibroadenoma was more common in 21-30 years age group.

89% patients with mastalgia were premenopausal while 95.2% with painless nodularity and all patients with fibroadenoma were premenopausal.

Symptoms	Right	Left	Bilateral
Pain			
Cyclical	12	15	31
Noncyclical	20	24	07
Lump	10	15	02
Nodularity			
Painful	4	5	14
Painless	5	3	13
Fever	12	-	-
Nipple Discharge	2	5	1
Trauma	1	-	-
Table 4. Clinical Manifestations			

Diagnosis	Taking OCP	Not Taking OCP
Mastalgia	53	38
Painless nodularity	13	08
Fibroadenoma	11	14
Breast abscess	4	7
Miscellaneous	2	7
Table 7. Relation to Oral Contraceptive Use		

58.2% patients with mastalgia were taking OCP.

DISCUSSION

The present study conducted on 153 female patients having benign breast disease covered the rural as well as urban population in and around Kanpur. Study has shown that the majority of patients presenting to the OPD have benign diseases. Santen RJ [1].

The study is consistent with the study at Kings College Hospital Breast Clinic (London), [2] which shows that benign breast diseases are at least 10 times more common than breast cancer. [3], [4]

Many demographic and social factors such as age, [5], early marriage; socioeconomic status; menstrual status; oral contraceptives [6]; shyness; reluctance for breast examination, etc. contributed to the pattern of disease and availability of material.

The most frequent complaint of the patients was pain with lump (Mastalgia with nodularity) followed by pain alone. [7]

In present study, cyclical and non-cyclical mastalgia were present in 67.74% & 36.26% respectively. Krishnaswamy [8] reported mastalgia as a major complaint [56.9%]. Khanna AK et al [9] reported similar findings as cyclical mastalgia [61.5%] to be more common than non-cyclical mastalgia [38%].

Diagnosis	Upper	Upper Middle	Lower Middle	Upper Middle	Lower
Mastalgia	3	5	45	27	11
Painless nodularity	1	2	11	6	1
Fibroadenoma	1	3	12	6	3
Breast abscess	-	-	02	5	4
Miscellaneous	-	2	2	4	1
Table 5. Distribution based on Socioeconomic Status					

Majority of patients (45.8%) belonged to lower middle class.

Diagnosis	Premenopausal	Postmenopausal
Mastalgia	81	10
Painless nodularity	20	01
Fibroadenoma	25	-
Breast abscess	11	-
Miscellaneous	7	2
Table 6. Distribution based on Menstrual Status		

Peak incidence of cyclical mastalgia is noted in the 3rd decade of life.

An interesting correlation of oral contraceptive is noted with mastalgia [58.2%] due to higher content of oestrogen.^[6]

In a case study of benign breast disease in Boston University in 1986, fibroadenoma was found to be the commonest benign tumour during 2nd decade of life in married nullipara.^[10]

However, in our study, fibroadenoma was the 2nd common benign breast disease [13.38%] with more probability on left side. The age group was consistent with other studies.

Miscellaneous group included breast abscesses (7%); tubercular abscesses (1.2%); galactocoele (1.2%); phyllodes tumour (0.6%).^{[11], [12].}

The results are consistent with studies of Rangabashyam^[13] and Khanna.^[9]

There were 7 patients with nipple discharge [4%] in this study which goes parallel with the Krishnaswamy's study^[8] which reported 6.8%.

CONCLUSION

We conclude from this study that benign breast diseases are more common than their malignant counterparts (10:1).

Cyclical nodular mastalgia is the commonest benign breast disease (67.74%) with peak incidence in 3rd decade, followed by fibroadenoma (15.9%) with peak incidence in 2nd decade.

Miscellaneous category ranks third in the study including inflammatory conditions and breast abscesses which had a definite correlation with pregnancy and lactation. FNAC was the most effective investigation, followed by USG and mammography.

However, the role of clinical examination cannot be overlooked.

But since in our study the sample size is small, much work needs to be done to collect comprehensive data for better understanding of the nature of benign breast disease and their proper management.

In Indian scenario, education regarding breast self-examination and proper followup is highly recommended so that early treatment is sought.

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