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Breast Benign Disease in Female Population

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Abstract

Background: Benign breast diseases are a neglected entity in developing countries despite the fact that they constitute the majority of breast complaints. There is a paucity of published information regarding benign breast diseases in our region. This study describes our experience in the diagnosis and classification by outlining the clinic pathological pattern of benign breast diseases in our local setting.
Methods: This prospective descriptive study was conducted on 80 female patients aged 10 years and above presenting with benign breast diseases.
Results: A total of 80 female patients with benign breast diseases were studied. The majority of patients, 39 (48.75%) were younger than 30 years. Fibro adenoma 30 (37.5%) was the most frequently diagnosed benign breast disease followed by fibrocystic changes 16 (20%).
Conclusion: Benign breast diseases are more common than malignancies in our environment and occur mainly in young women less than 30 years of age and were mostly fibro adenoma and fibrocystic change. Though premalignant lesions of proliferative lesions with atypia were less common in this study, it is advisable that all cases of breast lesions should be carefully evaluated to exclude possibility of breast cancer.

Keywords

breast,
malignancy,
lump,
management, rural

Introduction

Breast is a dynamic structure that undergoes changes through a woman's life. Virtually every woman with a breast lump, breast pain or discharge from nipple fears that she has breast-cancer. It is the most common cancer in the women in western world and the most common cause of death in women between 35-55 years. (1) There is a significant variation in the presentation of different lesions of breast in relation to age of the patients.

Benign breast Diseases is defined as any non-malignant breast condition and encompasses a wide range of clinical and pathologic disorders. (2) It is one of the most common diseases in the females of any society. Up to 30% of women suffer from benign breast condition in anytime of their life and this compels them to take the treatment. (3) Even though majority of the breast complaints are benign breast condition compared to malignancy it is a neglected

entity. (4) Early diagnosis and prompt treatment will avoid unnecessary surgery and patient's anxiety of having breast lump as carcinoma will be relieved. The incidence of benign breast lesions begins to rise during the second decades of life and peaks in the fourth and fifth decades, as opposed to malignant diseases, for which the incidence continues to increase after menopause, although at a less rapid pace. (5-6)

A lot of attention is focused on breast cancer because breast cancer is the most dreaded disease of the female breast and also the most common malignancy in women (7, 8), thereby neglecting the more common diseases of the breast which are largely benign. (9,10) about 30% of women will suffer from a benign breast disorder requiring treatment at sometime in their lives (11) and about 90% of women attending a breast clinic will have a benign breast condition. (12)

Carcinoma of the breast is extremely rare below the age of 20 years, but thereafter the incidence steadily rises, so that by the ages 90 years nearly 20 % of the women are affected. (13) Although in majority of cases a provisional diagnosis can be made on the basis of thorough history taking and careful assessment of physical characteristic but use of orderly sequence of investigation is required in nearly all cases of breast lump to attain a definite diagnosis. Fine needle aspiration cytology (FNAC), ultrasonography, mammography, excision biopsy are important investigations for the diagnosis of breast lump to find out incidence of breast carcinoma, fibro adenoma or other pathology in different age group.

The main problem is once the fear of cancer in the mind of patient as well as clinician is alleviated, the neglect of benign disease starts. Benign diseases of breast of minor consequences go unreported by patients in India, especially in rural population, due to cultural barriers and financial constraints.

Methods

This prospective descriptive study was done for 80 patients presenting in the OPD. All breast related complaints and lesions of the breast were included in this comprehensive study. Patients with obvious clinical features of malignancy or those who on work up were diagnosed as carcinoma were excluded from the study. Detailed histories of patients were recorded that included age, marital status, parity, age of menarche, age at first pregnancy and age at menopause. Patients aged 50 years or above and having no menses for at least two years at the time of presentation were considered to be postmenopausal. Family history of breast diseases especially breast cancer, history of contraception used was recorded. Detailed examination of lump and axilla was made with especial attention to any clinical signs of malignancy. Diagnosis was done by Triple assessment like Clinical examination, imaging like USG and mammography and histopathological examination like FNAC, core needle biopsy or excision biopsy.

Results

The study group was comprised of 80 patients with benign breast diseases. A spectrum of lesion was identified with commonest being fibro adenomas followed by fibrocystic disease. Fibro adenoma formed 37.5% of the cases, followed by fibrocystic disease forming 20 %.

The other benign lesions observed were breast abscess, ductal papilloma, accessory breast, mastalgia, cellulites, nipple discharge, lactating adenoma and mastalgia. Incidence of the condition is given in Table 1.Regarding sidewise distribution, it is seen more common on right side (42 in number,: 52.5%)followed by left side (30, : 37.5%) given in Table 2.

Table 1: Incidence with percentage of breast disease

Breast diseases	Number. of patients	Percentage (%)
Fibro adenoma	30	37.5
Fibrocystic disease	16	20
breast abscess	7	8.75
Duct papilloma	3	3.75
Accessory breast	2	2.5
Mastalgia	6	7.5
Lobular hyperplasia	4	5
Invasive ductal carcinoma	4	5
Granulomatous mastitis	2	2.5
Lactating adenoma	2	2.5
Nipple discharge	2	2.5
cellulites	2	2.5

Table 2: sidewise distribution of benign breast disease

Side involved	Number of cases	Percentage (%)
Right breast	42	52.5
Left breast	30	37.5
both breast	8	10

Table 3: Age incidence of benign breast diseases in present study as compared with other studies

Study conducted	Peak Age of incidence	Percentage (%)
Present Study	21-30	47.5%
Shukla et al(14)	21-30	43%
Naveen et al(15)	21-30	50%
Karki et al(16)	21-40	67%
Dahri et al(17)	21-30	44%

Table 4: Relationship between age distributions of pathological findings of breast disease

Age(years)	Number of patients	Percentage (%)
11-20	1	1.25
21-30	38	47.5
31-40	34	42.5
41-50	5	6.25
51-60	2	2.5
61-70	0	0

Table 5: modes of presentation of patients

symptoms	Number of cases	Percentage (%)
Lump	34	42.5
Discomfort	39	48.7
Others	5	6.3
None	2	2.5
total	80	100

Discussion

In our study majority 38(47.5%) of the patients with Benign Breast disease were in the age group 21-30 and these findings are consistent with those of similar studies from Shukla et al (14), Naveen et al (15), Karki et al (16), and Dahri et al. (17) The Age incidence of benign breast diseases in present study as compared with other studies is shown in Table 3.

Fibro adenomas were the commonest tumor with 30 patients. Fibrocystic disease was the next common lesion, making up to 16 cases. The Rangabashya study established over 5-years also demonstrated fibro adenomas to be the commonest followed by fibroadenosis and inflammatory disease. (18)

Here the commonest age group was 21 to 30 years. Fibro adenoma was found common in the second and third decades (Table 3). Oluwle and Freemen (19) have observed that the predominant age incidence in their studies was 11 to 20 years & peak age incidence for Fibro adenoma was between 16 to 25 years, which is consistent with this study.

Our data showed that the distribution of breast diseases exhibited a distinct pattern starting from the 2nd decade which had a significant number, then peaking at the 3rd decade and then falling rapidly, with the 7th and 8th decade having no women with breast diseases. In our study, breast lumps were the most common presentation of breast diseases which is in tandem with numerous studies, (20, 21) but at variance with recent studies by Krishnaswamy (22) and Akshara Gupta et al (23) in which pain was the commonest complain. This may not be unconnected with the fact that Fibro adenoma which is the most common breast diseases in this environment is not usually associated with pain. A significant proportion of breast diseases were discovered as incidental findings following triple assessment even though the subjects had no complain. As far as inflammatory conditions were concerned, the present study involved 7 patients, 7 abscesses and 6 case of mastalgia and 2 cases of cellulites. The inflammatory breast diseases (mastitis and breast abscess) were the next common breast diseases after fibro adenoma, in the study population. This could likely be due to the high parity amongst them and therefore high frequency of pathologies associated with lactation Table 4, 5. Some studies are consistent with ours with the 3rd decade being the age group with the maximum incidence of breast diseases (24), while in others the incidence of breast diseases peaked in the 4th and 5th decade (25). The different patterns are determined by the relative prevalence of the various breast diseases in those environments. The 3rd decade as the decade with maximum incidence may be due to the fact that most women in this environment marry in late teens and early twenties and birth their children almost immediately within the 3rd decade. Fibrocystic disease constituted 20 % of breast diseases and was more than the inflammatory breast diseases in our study. Some studies show fibrocystic disease to be the most common breast diseases, being that the process is observed clinically in up to 50% and histological in 90% of women. (26) The low incidence in our study may be due to the fact that it is present in association with other pathologies and our diagnosis is based on the main pathology present. Fibrocystic disease was also most common in the second and third decade in our study. The age group incidence of fibrocystic disease varies geographically with some studies reporting the highest incidence in 5th decade. (27) The reasons are unclear but may be due to differences in age of menarche, parity, breast feeding practices and use of oral contraceptives which this study did not explore. Cases of Mastalgia constituted 7.5% of breast diseases in our study and the incidence was low compared to the west. It affects up to 70% of women at some time in their lives and constitutes about 50% of referrals to breast clinics in western populations. (28) .However, in a 3 year Australian study, the Mastalgia sufferer had an average of 42 years (29) and in studies from the UK, Mastalgia was most common in the 4th and 5th decades respectively .(30)

Conclusion

Benign breast disorder is a very common problem in females of reproductive age. Noted incidences of different breast diseases vary from population to population for various reasons prevalent among those societies. Hence, incidences of different breast diseases are not comparable among studies conducted, even, in same country. Among rural populations of countries like India or other South Asian nations, common problems for which women consult a breast clinic are, palpable lump, severe breast pain and nipple discharge. Fibro adenoma is the commonest reported problem in our setup mostly seen in 2nd and 3rd decades of life. Fibrocystic disease and breast abscess, due to neglected hygiene, is the second and third common entities.

Thus, we conclude that breast diseases comprise a spectrum of disorders, with Fibro adenoma being the commonest breast diseases. Breast diseases occurred most frequently in the younger 2nd and 3rd decades as opposed to older decades. A significant proportion of breast diseases in our study were discovered following breast screening even though the subjects had no complain.

With increasing awareness and urbanization of our population the upset in order of frequency of different BBDs is likely to happen as has been reported by studies conducted in urban parts of India.

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