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A study on clinical profile of Benign Breast lesions

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Abstract

Background and Objectives: Benign breast disease are commonly found as painless palpable mass the diagnosis may be corroborated with specific benign features found on physical examination, mammography and ultrasound. The purpose of present study was to assess the various age of presentation of benign breast diseases and their mode of presentation.

Method: Fifty cases of benign breast diseases were studied during the period from June 2017 to May 2018.

Result: In all benign breast disease Fibroadenoma is most common with presenting mainly in the age group of 11-20 years. All cases of benign breast disease presented with lump (100%) out of them 80% presented with painless lump and 20% presented with painful lump. In present study 96% were premenopausal and 4% were postmenopausal woman. Most common site of involvement was left breast and most common quadrant was upper outer quadrant.

Conclusion: Benign breast disease present mainly 11 -30 year of age group. Most common clinical presentation in benign breast disease is lump (painless). Majority of benign breast disease involve upper and outer quadrant of breast. Lymph node involvement in benign breast disease is rare.

Keywords: Benign breast disease, ANDI, Fibroadenoma, Cystosarcoma phyllodes

Introduction

Mammary glands, or breasts, are a distinguishing feature of mammals. It is unique in that its development and growth are under the control of numerous hormones and various physiological states such as pregnancy and lactation. Until recently benign disorders of the breast were regarded, as relatively unimportant: far more attention was focused on breast cancer. This has resulted in many patients with benign breast disease receiving rather scant attention from clinicians, and there has been relatively little academic investigation into this complex subject. Benign breast disease has also suffered from the major disadvantage of a hopelessly confusing terminology, inadequate classification and poor correlation between clinical, radiological and pathological features^[2]

During the past decade there has been increasing interest in benign breast disease for a number of reasons. As patients demand investigation and treatment for symptoms of benign breast disease. This has, in turn, increased the number of women referred to specialist breast disease units these have participated in scientific studies on the classification and treatment of their condition^[2]

The term benign breast disorder (BBD) can be defined as any nonmalignant breast condition and encompasses a wide range of clinical and pathologic disorders. Although BBD is not life threatening, clinicians require an in-depth understanding of its significance so that clear explanations can be given to affected patients, appropriate treatment can be instituted, and unnecessary long-term follow-up can be avoided³

Objectives

Objectives of the study

The clinico-pathological study of benign breast disease is undertaken;

- To study the age distribution of various benign breast diseases
- To study different types of benign breast diseases, their mode of Clinical presentation and Pathology.

Methodology

This clinicopathological study includes cases of benign breast disease is a prospective study conducted in Government hospital. This survey was mainly meant for studying the age distribution, to evaluate the different types of benign diseases of the breast and their mode of clinical presentation and pathology.

Inclusion Criteria: Patient who get admitted, who are clinical diagnosed and confirmed by histopathology examination representing various types of benign disease of the breast are included in the study.

Exclusion Criteria: Patients diagnosed clinically as benign breast disease but in whom histopathological examination reports proved to be otherwise are excluded from the study. Totally 47 cases came for follow up to the outpatient, but 3 cases did not come inspite of appeal made to them, mainly because of financial difficulties, partly because of their carelessness and probably because of the long distance from which the patients came to the hospital for their original treatment.

This is a study comprising of 50 cases of benign breast disease which includes 36 cases of fibroadenoma, 6 cases of Cystosarcoma phyllodes, 2 cases of lipoma, 2 cases of galactoceles, 2 cases of tubular adenoma and 2 cases of ductal ectasia.

After admission to the hospital, a detailed history was taken regarding the presenting complaints particularly the duration, mode of onset of lump and pain in breast, its progress, nipple discharge, history of undergoing operation previously for a similar lump, Family history of occurrence of benign breast disease, menstrual and obstetric history, history of taking contraceptive pills and whether the patient was pregnant or lactating. All details were entered in the charts specially prepared (proforma) after taking the history, a general examination of the patient was done and general condition noted as regards to anaemia and hypoproteinemia. A detailed local examination of presenting lesion was then carried out and a diagnosis arrived at.

Results

Table 1: Type of benign breast disease in the present study

Type	No. of Cases	Percentage
Fibroadenoma	36	72%
Cystosarcoma phyllodes	6	12%
Galactocele	2	4%
Lipoma	2	4%
Tubular adenoma	2	4%
Ductal ectasia	2	4%

In my study Fibroadenoma forms the most common benign breast disease which is accounting for 36 cases (72%), followed by Cystosarcoma phyllodes 6 cases (12%), and 2 cases each of Lipoma (4%), Tubular adenoma (4%), Galactocele (4%), and Ductal Ectasia (4%) were found.

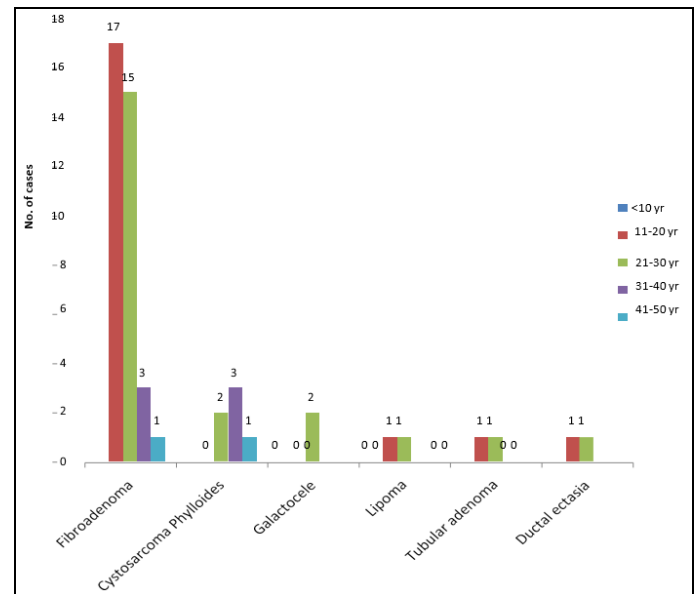
In my study, most commonly affected age group of B.B.D. is 21-30 Yrs, 22 cases (44%), followed by 11-20 Yrs 20 cases (40%) Fibroadenoma is most common in age group 11-20 Yrs 17 cases (47.22%) followed by age group 21- 30 Yrs 15 cases (41.67%) Cystosarcoma Phyllodes is most common in the age group 31-40 Yrs 3 cases (50%).

2 cases (100%) of Galactocele observed in age group 21-30 Years. 1 case (50%) each of Lipoma, Tubular Adenoma and

Ductal Ectasia were seen in age group 11-20 Years and 21 -30 Years.

Table 2: Age distribution of different benign breast disease in the study

Diseases	<10Y	11-20Y	21-30Y	31-40Y	41-50Y	>50Y
Fibroadenoma	-	17 (47.22%)	15 (41.67%)	3 (8.33%)	1 (2.78%)	-
Cystosarcoma Phyllodes	-	-	2 (33.33%)	3 (50%)	1 (16.67%)	-
Galactocele	-	-	2 (100%)	-	-	-
Lipoma	-	1 (50%)	1 (50%)	-	-	-
Tubular Adenoma	-	1 (50%)	1 (50%)	-	-	-
Ductal Ectasia	-	1 (50%)	1 (50%)	-	-	-
Total cases	-	20 (40%)	22 (44%)	6 (12%)	2 (4%)	-

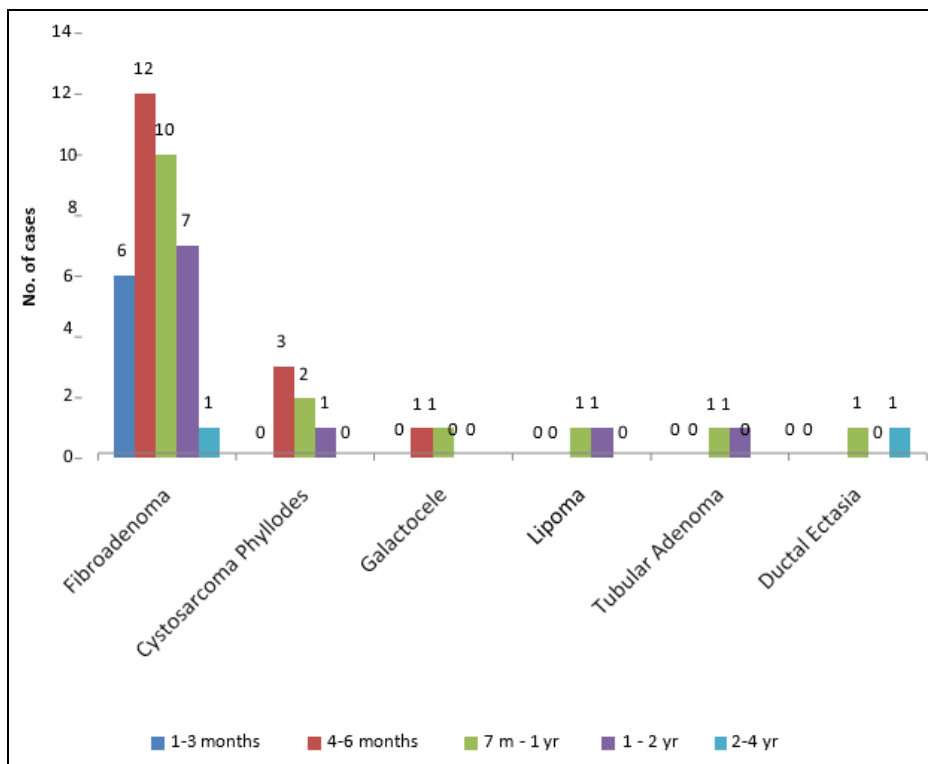


Graph 1: Age distribution of different benign breast disease in the study

Table 3: duration of symptoms in the study

Duration	1-3M	4-6M	7M-1Y	1-2Y	2-4Y
Fibroadenoma	6	12	10	7	1
Cystosarcoma Phyllodes	-	3	2	1	-
Galactocele	-	1	1	-	-
Lipoma	-	-	1	1	-
Tubular Adenoma	-	-	1	1	-
Ductal Ectasia	-	-	1	-	1
Total	6	16	16	10	2

In my study out of 36 cases of Fibroadenoma 12 cases presented with history of symptom for 4-6 months, 10 cases with history of symptom for 7months-1year, 7 cases with history of symptom for 1-2year, 6 cases with history of symptom for 1-3 months, 1 cases with history of symptom for 2-4 years. Out of the 6 cases of *Cystosarcoma phyllodes* 3 cases presented with history of symptom for 4-6 months, 2 cases with history of symptom for 7months-1year and 1 case with history of symptom for 1-2year. Out of 2 cases of Galactocele, 1 case each presented with history of symptom for 4-6 months and 7months-1year. Out of 2 cases of Lipoma 1 case each presented with history of symptom for 7months-1year and 1-2 years. Out of 2 cases of Tubular adenoma 1 cases each presented with history of symptom for 7months-1year and 1-2years. Out of 2 cases of Ductal Ectasia 1 cases each presented with history of symptom for 7months-1year and 2-4 years.



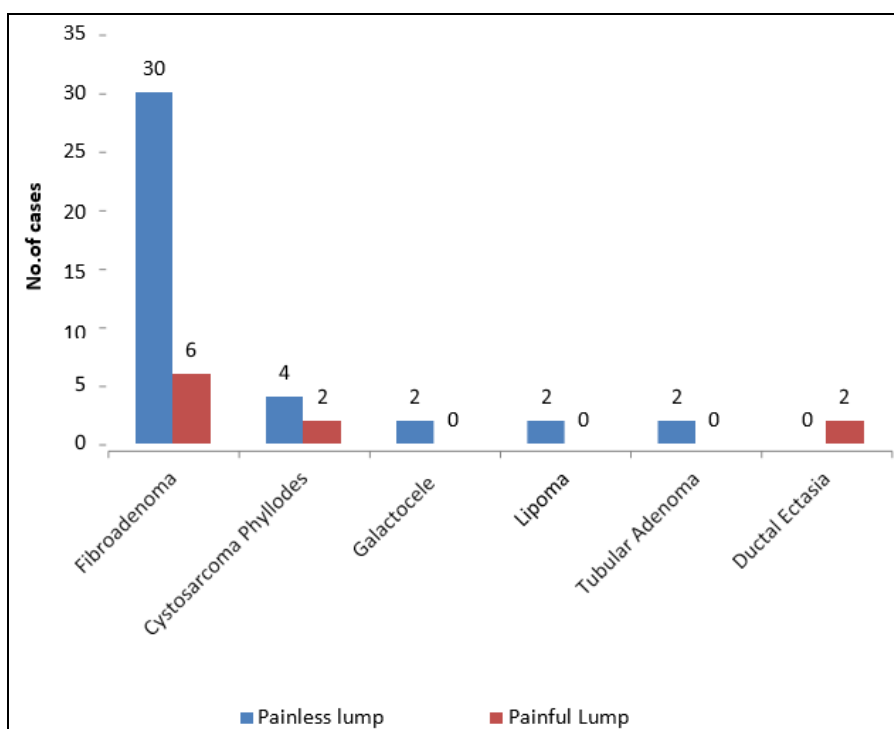
Graph 2: Duration of symptoms in the study

Table 4: Mode of presentation

Distance	Total	Painless Lump	%	Painful Lump	%
Fibroadenoma	36	30	83.33%	6	16.67%
Cystosarcoma Phyllodes	6	4	66.67%	2	33.33%
Galactocele	2	2	100%	-	-
Lipoma	2	2	100%	-	-
Tubular Adenoma	2	2	100%	-	-
Ductal Ectasia	2	-	-	2	100%
Total	50	40	80%	10	20%

In my study all benign diseases presented with Lump, Among these 40 cases (80%) presented with painless lump and 10 cases (20%) presented with painful lump.

In my study, 30 cases (83.33%) of Fibroadenoma, 4 cases (66.67%) of Cystosarcoma Phyllodes, 2 cases (100%) each of Galactocele, Lipoma and Tubular Adenoma presented as painless lump. Where as, 6 cases (16.67%) of Fibroadenoma 2 cases (33.33%) of Cystosarcoma Phyllodes. and 2 case (100%) of Ductal Ectasia presented as painful lumps.



Graph 3: Mode of presentation

Table 5: Pre-menopausal and post-menopausal status of patient in present study

Diseases	Premenopausal	Postmenopausal
Fibroadenoma	35	1
Cystosarcoma Phylodes	5	1
Galactocele	2	-
Lipoma	2	-
Tubular Adenoma	2	-
Ductal Ectasia	2	-
Total	48(96%)	2(4%)

In my study out of 50 cases of B.B.D. majority 48 cases (96%) are premenopausal women and 2 cases (4%) are post-menopausal women.

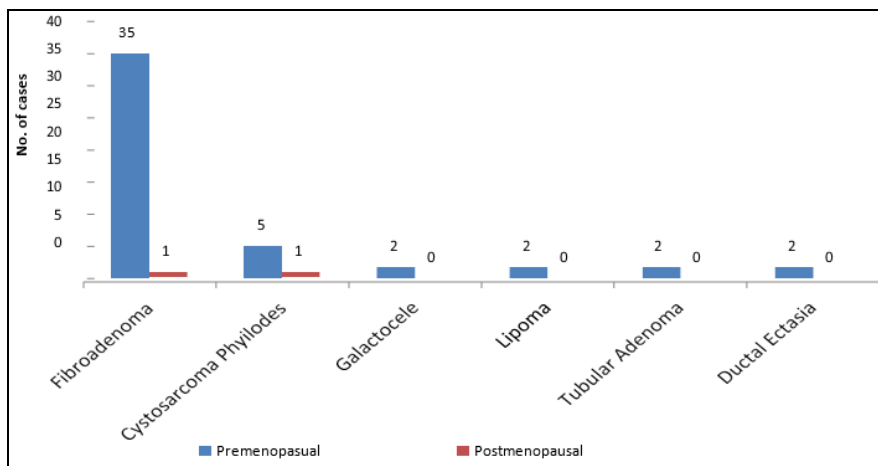
In my study of 50 cases of benign breast disease, 26 cases (52%) presented in Left breast and 22 cases (44%) presented in Right breast and 2 cases (4%) presented as bilateral disease.

In my study Fibroadenoma occurred more often in Left Breast (50%) than Right Breast (44.44%) bilateral involvement was seen in 2 cases (5.56%) Cystosarcoma phylodes occurred more

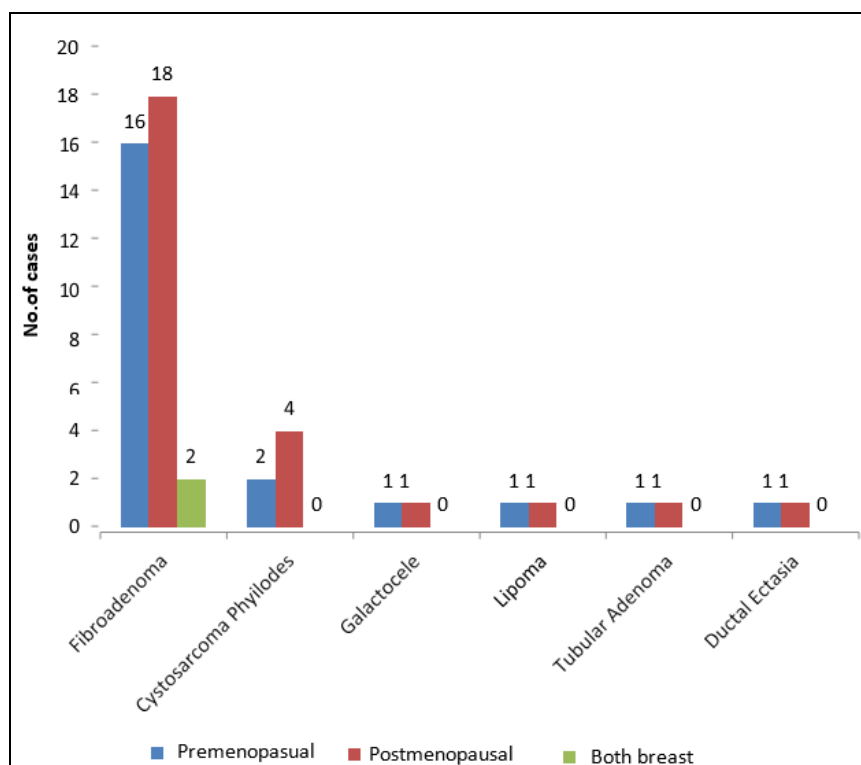
often in left breast (66.67%) than Right Breast (33.33%) Galactocele, Lipoma, Tubular adenoma, Ductal Ectasia occurred in equal distribution each accuracy for 50%. In my study occurrence of multiple Fibroadenoma was seen in 5 cases among 36 cases of Fibroadenoma. Multiple Cystosarcoma phylodes were seen in 2 cases among 6cases of Cystosarcoma phylodes. The maximum number of lumps was 3 seen in 1 case, and 2 lumps were seen in 6 cases. Bilateral lumps were seen in 2 cases.

Table 6: Site of involvement

Diseases	Rt Breast	%	Lt Breast	%	Both Breast	%
Fibroadenoma	16	44.44%	18	50%	2	5.56%
Cystosarcoma Phylodes	2	33.33%	4	66.67%	-	-
Galactocele	1	50%	1	50%	-	-
Lipoma	1	50%	1	50%	-	-
Tubular Adenoma	1	50%	1	50%	-	-
Ductal Ectasia	1	50%	1	50%	-	-
Total	22		26		2	



Graph 4: Pre-menopausal and post- menopausal status of patient in present study



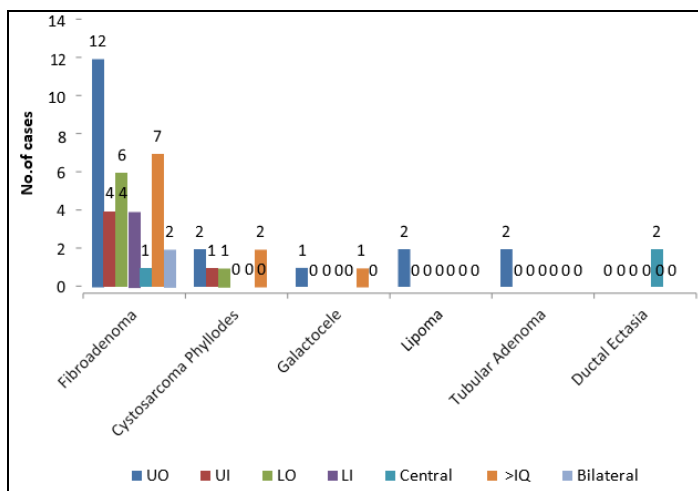
Graph 5: Site of Involvement

Table 7: Quadrant topography of diseases in present study

Disease	Total	Uo	Ui	Lo	Li	Central	>iq	Bilateral
Fibroadenoma	36	12	4	6	4	1	7	2
Cystosarcoma Phyllodes	6	2	1	1	0	-	2	-
Galactocele	2	1	-	-	-	-	1	-
Lipoma	2	2	-	-	-	-	-	-
Tubular Adenoma	2	2	-	-	-	-	-	-
Ductal Ectasia	2	-	-	-	-	2	-	-
Total	50	19	5	7	4	3	10	2

UO- Upper Outer, UI- Upper Inner, LO- Lower Outer, LI- Lower Inner, > 1Q- More than one quadrant

In my study, Fibroadenoma Occurred, mostly in Upper Outer quadrant (12 cases) Involvement of more than 1 quadrant was seen in 7 cases of Fibroadenoma out of 36 cases but in Cystosarcoma phyllodes 2 cases were involving more than one quadrant out of 6 cases. Galactocele occurred in Upper Outer (1 cases) and More than one quadrant (1 cases) out of 2 cases. All cases of Lipoma and Tubular adenoma occurred in Upper Outer quadrant. 2 cases (100%) of Ductal Ectasia occurred in central quadrant.



Graph 6: Quadrant topography of diseases in present study

Discussion

Benign Breast Diseases a common disease affecting women in our country

Type of Lesion: In my study, the most common benign breast disease was fibroadenoma occurring in 72% of cases. In the study Conducted by Rangabashyam *et al.* [71] in 1983, fibroadenoma was the main type of disease in 57%. In the series of Khanna *et al.* [72], in 1988, fibroadenoma was the main type of disease in 40.8%. Farrow JH *et al.* [73], reported fibroadenoma as the commonest B.D. of female breast Oluwole and freeman [74] in 1979, reported them as the most black women and adolescent white females.

The next common benign diseases in my study was Cystosarcoma phyllodes occurring in 12% of cases. The other types of benign diseases found in my study was a two cases each of lipoma (4%), galactocele (4%), tubular adenoma (4%) and Ductal ectasia (4%).

Age Distribution: In my study of 50 cases, 44% cases were in the age group of 21-30 years. The next common age group is 11-20 years accounting for 40%. This corresponds to the study of Sushila Khanna [72] in which 40.06% Cases were in the age group of 21 -30 years. In my study, fibroadenoma was the

commonest benign disease with highest incidence in age group 11-20 years (47.22%). The youngest patient was 16 years old and the oldest patient was 45 years old. Duray and Collegues [75] described fibroadenoma most likely to occur in adolescents. Pike and oberman [76] reported the tendency of fibroadenoma to occur at the time of menarche. Mies and Rosen [77] have described a series of patients with an average age of 26 years with fibroadenomas. Foster ME. *et al.* [5] in their series of 362 cases of fibroadenoma reported the largest number of patients in the age group of 21 -25 years. Around 88.9% of fibroadenoma were observed in 11-30 years age group in the present study. In on Indian study by Dr. Rangabashyam *et al.* [71] maximum number of fibroadenoma (75.39%) were noted in 11-30 years age group. In the same way in Sushila Khanna [72] study 82.78% of fibroadenoma were presented b/w 11-30 years age group

Age group	Present study	Rangabashyam <i>et al.</i> study	Sushila Khanna <i>et al.</i> study
11-30 Years	88.9%	75.39%	82.78%

In my study cystosarcoma phyllodes occurred mainly in 31-40 Years age group accounting for 50% followed by 21-30 years age group accounting for 33.33% and 41-50 Years age group (16.67%) Galactocele seen in the age group of 21-30 years (100%). Lipoma, Tubular Adenoma and Ductal Ectasia present in age group 11-20 years and 21- 30 years accounting for 50% each. There was one case with a past history of excision of lump and diagnosed as recurrent phyllodes tumour. Moffat and colleagues [78] have reported incomplete excision of phyllodes tumours as a major determinant for local recurrence. Briggs and colleagues [79] have reported that Malignant behaviour in phyllodes tumour of young women is extremely rare.

Clinical Features: In my study, the most prominent presenting Symptoms was the presence of painless lump in 40 cases (80%) and 10 cases presented with painful lump (20%). In 36 cases of fibroadenoma, 30 cases (83.33%) presented with a painless lump which was accidentally noticed by the patient. 6 cases (16.67%) presented with a lump which was painful and pain started after the lump. The pain was reported as dull aching, non-radiating, Continuous and not in relation to menstruation. No cases of fibroadenoma presented with nipple discharge. Most of the fibroadenomas occurred with a duration of 4-6 months (33.33%). No patient with fibroadenoma had a history of previous operation for benign breast diseases. There was no positive family history although it is known that there may be a familial predisposition for bilateral fibroadenomas. In 6 cases of Cystosarcoma phyllodes, 4 cases (66.67%) presented with a painless lump and 2 cases (33.33%) presented with a lump associated with pain which started later. 3 cases (50%) occurred with a duration of 4-6 months. 1 case had a history of previous operation for a similar lump. No cases presented with nipple discharge. Majority of the cases in my study were in reproductive age group. 4 cases complained of irregularity of Menstrual cycle and none of them had any significant change in the size of the swelling before, during and after menstruation.

Site of Involvement: In my study, of the 36 cases of fibroadenomas, 18 cases (50%) presented with involvement of left breast, 16 cases (44.44%) presented with involvement of Right Breast and 2 cases (5.56%) presented with bilateral involvement. Majority (12 cases) (33.33%) presented with a lump in the upper outer quadrant and 7 cases presented with the

lump involving more than 1 quadrant. Foster ME. *et al.* [5], reported in their series of 362 cases of fibroadenoma, upper outer quadrant was more frequently involved and 55% occurred in left breast and 45% in the Right which correspond to present study. Of the 6 cases of Cystosarcoma phyllodes, 4 cases (66.67%) presented with involvement of left breast and 2 cases (33.33%) presented with involvement of right breast. 2 cases presented with involvement of more than one quadrant. 2 cases presented with a lump in upper outer quadrant.

Multiplicity of fibroadenoma: In my study, of the 36 cases of fibroadenoma 5 cases (13.89%) presented with multiple lumps and 2 cases (5.56%) had Bilateral involvement, In Haagensen's [16] series of 619 cases of fibroadenomas, multiple fibroadenoma occurred in 19.9%. Forster ME. *et al.* [5] reported multiplicity of fibroadenomas in 7.5% cases in their series of 362 cases of fibroadenomas. Of all fibroadenomas 10% of patient have multiple fibroadenoma on presentation².

Conclusion

In the present study Fibroadenoma is the most common benign breast disease. Most common clinical presentation in benign breast disease is lump (painless). Majority of benign breast disease involve upper and outer quadrant of breast. Lymph node involvement in benign breast disease is rare.

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