ABSTRACT:

Background: Breasts are the distinguishing characters of the mammals.1. Breast is a dynamic organ which undergoes several cyclical changes during the reproductive life and is influenced by the hormones during puberty, menstruation, pregnancy, lactation and menopause. Benign breast diseases (BBD) are common during this reproductive life. These diseases are more common than the breast cancer. The most common symptoms are lump (47%) and pain (37%), the main concern of the patient being if the lump is a malignancy. 30% of the women who suffer from BBDs will require treatment at some time in their lives. The aim of this clinico-pathological study is to exclude malignant breast disease & lay an emphasis on presentation & treatment of benign breast diseases.

Objectives:

1. To study the natural history and different modes of clinical presentation of benign breast diseases.
2. To study the breast diseases with respect to various pathological presentations.
3. To correlate the clinical diagnosis with the histopathological diagnosis in order to refine the diagnostic skills and mend the mistakes committed in the process.

Materials and Methods: 60 patients admitted with benign breast diseases under General Surgery care in HKE’S Basaweshwar Teaching and General Hospital, Gulbarga were taken as Subjects for this study, after obtaining institutional ethical committee clearance & taking the proposed Informed Consent from the patients. Timeline of the Study: 18 months from DEC 2012 to MAY 2014.

Conclusions: Fibroadenoma was the predominant breast tumour occurring in 56.67% of cases. The next common were breast abscess occur in 18.3%, fibroadenosis 11.67% and phylloides tumour 7.5%. 2 found two cases of antibioma. Most common presenting complaint was painless lump (53.3%) Majority of cases presented to the hospital between 1-6 months after noticing the symptoms. FNAC and HPR are diagnostically accurate.
INTRODUCTION

Breasts are the distinguishing characters of the mammals. Breast is a dynamic organ which undergoes several cyclical changes during the reproductive life and is influenced by the hormones during puberty, menstruation, pregnancy, lactation and menopause.

Benign breast diseases (BBD) are common during this reproductive life. These diseases are more common than the breast cancer. The most common symptoms are lump (47%) and pain (37%), the main concern of the patient being if the lump is a malignancy. 30% of the women who suffer from BBDs will require treatment at some time in their lives.

Benign breast diseases contain a spectrum of diseases ranging from inflammatory conditions of the breast to the benign neoplastic conditions of the breast. Benign proliferative changes in the breast are considered as Aberration in the Normal Development and Involution [ANDI]. The concept of ANDI was first described by Prof. Hughes and these aberrations are due to the cyclical variations in the estrogen and the progesterone levels.

Benign conditions of the breast have always been neglected in comparison to cancer, despite the fact that only one out of ten patients presenting to a breast clinic suffer from cancer. This is not surprising in view of the emotional implications of breast cancer and its treatment, but it has meant that the study of the benign breast disorders has been undeservedly neglected. Reported studies have been directed largely towards a possible relationship to cancer, rather than towards the basic processes underlying benign conditions.

The aim of this clinic-pathological study is to exclude malignant breast disease & lay an emphasis on presentation & treatment of benign breast diseases.

Objectives:
1. To study the natural history and different modes of clinical presentation of benign breast diseases.
2. To study the breast diseases with respect to various pathological presentations.
3. To correlate the clinical diagnosis with the histopathological diagnosis in order to refine the diagnostic skills and mend the mistakes committed in the process.

MATERIALS AND METHODS

60 patients admitted with benign breast diseases under General Surgery care in HKE’S Basaweshwar Teaching and General Hospital, Gulbarga were taken as Subjects for this study, after obtaining institutional ethical committee clearance & taking the proposed Informed Consent from the patients.

Prospective observational study of these patients was done to analyze the distribution of disease with respect to age, type of benign breast disease, chief complaints, duration, side, size, clinical & histopathological diagnosis and to compare and correlate the clinical diagnosis with pathological diagnosis. Timeline of the Study: 18 months from DEC 2012 to MAY 2014.

Inclusion Criteria:
All patients admitted with benign breast diseases under General Surgery care in HKE’S Basaweshwar Teaching and General Hospital, Gulbarga would be taken as Subjects for this study.

Exclusion Criteria:
Patients admitted with malignant neoplasms of the breasts, cutaneous lesions of the breast and lesions affecting the adjacent tissues extending to breasts were excluded.

RESULTS AND DISCUSSION

In the present study, the youngest affected is a 14yr old female and the oldest female is 45yrs old. Maximum number of patients in this study group was in the age group of 21-30 yrs followed by 31-40 and the least being in the age group of >40 yrs.

In this study, patients mostly presented with painless lump in the breast 53.3%, 32 cases followed by painful lump in 23.3% and nipple discharge with or without pain being least i.e. in 1 patient each.
Incidence of benign breast disease in the present study sample was found to be significantly on the right side.

The incidence of benign breast disease in our study, as shown in the graph below, is maximum in the upper outer quadrant in 31.67%.i.e, 19 patients followed by the lower outer quadrant in 21.67%.i.e, 13 patients. Upper inner quadrant was involved in 16.67%.i.e, 10 patients and the both(outer & inner) in lower quadrant was the least accounting to 1.67%.i.e,one patient only.

31.6% of patients presented within 1 month & 30% of patient presented between 1-6 months & 7 presented after 1 year. Younger patients presented earlier than older patients.

Table 1: Distribution by Side

<table>
<thead>
<tr>
<th>Side</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>28</td>
<td>46.67</td>
</tr>
<tr>
<td>Right</td>
<td>31</td>
<td>51.67</td>
</tr>
<tr>
<td>Bilateral</td>
<td>01</td>
<td>1.67</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The sample size was categorized into 3 categories with majority of our patients in the group <20 sq cms and the other 2 groups.i.e,20-50 sq cms and >50 sq cms having 5 patients each. Average size was 19.46 sq cms.

Sample was categorized based on the clinical diagnosis and from the above table it is shown that Fibroadenoma is the most common Benign breast disease(56.67%). Next common benign condition found was breast abscess with 11 cases (18.3%)
Based on the histopathology in the present study, fibroadenoma predominated with 34 cases (56.67%). Next common benign condition found was breast abscess with 11 cases (18.3%), followed by fibroadenosis, i.e. 78 cases (13.33%), 2 cases of phyllodes tumour, antiobioma & lipoma each were recorded. Single cases of galactocele & duct ectasia were seen.

The incidence of fibroadenoma was maximum, in 21-30yrs (38.4%). Breast abscess was seen maximum in the age group of 21-30yrs. Fibroadenosis was seen maximum in the age group of 31-40yrs. Both cases of phyllodes tumour were found between 21-30yrs. of age group, lipoma was seen in the age group of 21-30 & 31-40yrs, one each. Galactocele was seen in the age group 21-30yrs, Duct ectasia in 35yr old female.

The below table shows that the sensitivity of Clinical Diagnosis in Diagnosing Benign Breast Diseases is 97% but whereas in case of Fibroadenosis, Antiobioma, Lipoma, Galactocele, Phyllodes tumour was 100%. The 2 cases which were diagnosed as Phyllodes tumour by FNAC was confirmed by HPR.

### Table 3: Comparison of Clinical Diagnosis with HPR

<table>
<thead>
<tr>
<th>Disease</th>
<th>Clinical</th>
<th>HPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibroadenoma</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Fibroadenosis</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Phyllodes Tumour</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Carcinoma Breast</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Duct Ectasia</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Galactocele</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lipoma</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Antiobioma</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

The below table shows that the sensitivity of Clinical Diagnosis in Diagnosing Benign Breast Diseases is 97% but whereas in case of Fibroadenosis, Antiobioma, Lipoma, Galactocele, Phyllodes tumour was 100%. The 2 cases which were diagnosed as Phyllodes tumour by FNAC was confirmed by HPR.

Chief complaints:

Most common presenting complaint was a painless lump 53.3%(32 cases) similar to the study conducted by Narayan Das et al, Kulkarni et al, Malik et al in contrary to the study done by Katiyar Shailesh Kumar where the most common presenting complaint was pain. It could be probably that pain was a precipitating factor for the patient.

Duration:

In the present study 30.0% of patients presented within 1 month & 31.6% of patient presented between 1-6 months & 7 presented after 1 year. Younger patients presented earlier than older patients.
Distribution by side:
In the previous studies done by Abhijeet et al, Mima B et al similar results were observed.

In the present study, incidence of benign breast disease in the present study sample was found to be significantly on the right side.

Distribution by quadrant:
In the previously done study by Saleh Mohammed et al, results obtained were similar to the present study that the most quadrant involved was right upper quadrant probably the maximum in the upper outer quadrant.

In the present study incidence of benign breast disease in our study is maximum in the upper outer quadrant in 31.67%, i.e., 19 patients followed by the lower outer quadrant in 21.67%, i.e., 13 patients. Upper inner quadrant was involved in 16.67%, i.e., 10 patients and the both (outer & inner) in lower quadrant was the least accounting to 1.67%, i.e., one patient only.

Distribution by size:
The previously done study by Ajitha, the majority of the patients were in the size group of 20-50 sq cms.

In the present study, the sample size was categorized into 3 categories with majority of our patients in the group <20 sq cms and the other 2 groups i.e., 20-50 sq cms and >50 sq cms having 5 patients each. Average size was 19.46 sq cms.

Distribution by Clinical diagnosis:
The previously done studies by Das et al, Kulkarni et al, Sandhya iyer fibroadenoma was the most common breast disease.

In the present study fibroadenoma predominated with 34 cases (56.67%). Next common benign condition found was breast abscess with 11 cases (18.3%), followed by fibroadenosis, i.e., 8 cases (13.33%), 1 case of Ca breast, antibioma & lipoma each were recorded. Single cases of galactocele & duct ectasia were seen.

Distribution by HPR:
Previously done studies by Sandhya iyer, Kaur N fibroadenoma was the predominant Benign breast disease.

In the present study fibroadenoma predominated with 33 cases (55%). In contrary to the above mentioned studies the next common benign condition found was breast abscess with 11 cases (18.3%), followed by fibroadenosis, i.e., 8 cases (13.33%), 2 cases of phyllodes tumour, antibioma & lipoma each were recorded. Single cases of galactocele & duct ectasia were seen.

Comparing clinical & HPR report:
The present study shows that the sensitivity of Clinical Diagnosis in diagnosing Fibroadenosis was 97%, and in fibroadenosis it was 100%, 2 cases of phyllodes tumour was diagnosed by FNAC. 1 among these 2 cases were diagnosed as Carcinoma Breast and the other was diagnosed as Giant fibroadenoma. The overall sensitivity of Clinical Diagnosis in detecting Benign Breast diseases is 97.9%.

CONCLUSIONS
Fibroadenoma was the predominant breast tumour occurring in 56.67% of cases. The next common were breast abscess occur in 18.3%, fibroadenosis11.67% and phyllodes tumour 7.5%. 2 found two cases of antibioma. Most common presenting complaint was painless lump (53.3%). Majority of cases presented to the hospital between 1-6 months after noticing the symptoms.

FNAC and HPR are diagnostically accurate.

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