Background: Benign breast diseases are a neglected entity despite the fact that it constitutes the majority of breast complaints and that the vast majority of the lesions that occur in the breast are benign. Aims and Objectives: The aims and objectives of the study are to analyze the percentage of incidence, age distribution, and other associated factors of benign breast diseases. Materials and Methods: The prospective study was conducted on 100 cases of benign breast diseases in Maharani Laxmi Bai Medical College, Jhansi, between January 2021 and June 2022. Results: Lump was found in all participants (100%) in which incidence of painless and painful lump was for 94% and 6%, respectively. 6% lump was found to be associated with non-cyclical mastalgia and 2% lump had having association with discharge. Milky discharge (1%) was found in the case of galactocele and serous discharge (1%) was found in duct ectasia. Benign breast diseases were found most commonly in premenopausal women (97%) in comparison to post-menopausal women (3%). Breast lump was investigated by fine needle aspiration cytology which was consistent with a lump of fibroadenoma and fibroadenosis in 95% of cases. Rest 5% of breast lumps were non-consistent. 90% of cases were found of fibroadenoma. All patients underwent surgical line of management except for fibroadenosis which was managed conservatively. Cases of breast abscess, fibroadenoma, duct ectasia, and galactocele admitted in hospital, for which mean hospital stay was 4.28 plus or minus 6.21 days. Conclusion: The most common benign breast disease encountered in clinical practice is fibroadenoma followed by fibroadenosis. They are most common in 15–25-year age group and its presentation is found to be more in married woman.

Key words: Benign breast disease; Risk factors; Clinicopathological

INTRODUCTION

Introduction benign breast disease is a neglected entity despite the fact that it constitutes the majority of breast complaints. The vast majority of the lesions that occur in the breast are benign.

Breast is a dynamic organ that undergoes cyclical changes throughout a woman’s reproductive life. Hormones and growth factors acting on the epithelial and stromal elements right from the onset of puberty till menopause cause significant morphological changes leading to Aberrations in the Normal Development and Involution (ANDI) causing the majority of benign breast diseases.
MATERIALS AND METHODS

Ethical
Ethical committee’s approval was duly taken. Data were collected in the department of general surgery from the bedside tickets of the patients after taking a short history and informed consent from the patient.

Source of data
The prospective study was conducted on 100 cases of benign breast lesions in Maharani Laxmi Bai Medical College, Jhansi, between January 2021 and June 2022.

Inclusion criteria
- Female patients with any benign disorder/disease of the breast, for example, a breast lump, breast pain, or a nipple discharge in the age group of 15–55 years were included in the study.

Exclusion criteria
- Women with an obvious malignant disease or those who had been treated for malignancy earlier and male patients were excluded in this study.
- A detailed history of presenting complaints such as the lump, pain in the breast, nipple discharge, significant past and family history, menstrual and obstetric history, history of intake of contraceptive pills, and a thorough physical examination was the basis of the study. After making an appropriate clinical diagnosis, one or more of the special investigations - fine needle aspiration cytology (FNAC), mammography ultrasound, or a core needle biopsy - were carried out for the confirmation of the diagnosis. All patients underwent operative treatment either in the form of excision biopsy or enucleation or wide excision or simple mastectomy. The excised specimen was sent for histopathological examination for confirmation of clinical diagnosis. All the patients were followed up for varying periods for evidence of recurrence.

Statistical analysis
The patient’s protocols were recorded in data collection form. All statistical calculations were made with the help of data analysis tool of Microsoft Excel 2013.

RESULTS

Lump was found in all participants (100%) in which the incidence of painless and painful lump was 94% and 6%, respectively. 6% lump was found to be associated with non-cyclical mastalgia and 2% lump had having association with discharge. Milky discharge (1%) was found in the case of galactocele and serous discharge (1%) was found in duct ectasia. Benign breast diseases were found most commonly in premenopausal women (97%) in comparison to post-menopausal women (3%). Breast lump investigated by FNAC which was consistent with lump of fibroadenoma and fibroadenosis in 95% of cases. Rest 5% of breast lumps were non-consistent. 90% of cases were found of fibroadenoma. All patients underwent surgical line of management except of fibroadenosis which was managed conservatively. Cases of breast abscess, fibroadenoma, duct ectasia, and galactocele admitted in hospital, for which mean hospital stay was 4.28±6.21 days.

DISCUSSION

Age
The benign breast disease incidence was found 54 in 15–25-year age group, 30 in 26–35-year age group, 10 in 36–45-year age group, and 6 in 46–55-year age group. Mean age was 27.17±10.068 years (Table 1).

The most common affected age group was between 15 and 25 years. This was similar to study conducted in 2017 by Saraswat and Vyas in which the most common age group was 16–32 years.

Incidence increased in age group 15–25 years which was due to hormonal effects in female breast and repeated infection due to poor hygiene.

Marital status
Benign breast diseases are found most commonly 61% of married women in comparison to 39% in unmarried women (Table 2).

Presenting symptoms
Lump was found in all study participants (100%) in which the incidence of painless and painful lump was 94% and 6%, respectively. 6% lump was found to be associated with non-cyclical mastalgia and the other 2% lump had having association with discharge. One of them has milky discharge.
discharge (1%) in the case of galactocele and other has serous discharge (1%) in duct ectasia (Table 3).

Breast lump was the most common presenting symptom in this study. It is also the most common presenting symptom in previous studies by Saraswat and Vyas, Kulkarni et al., and Koorapati and Bookya.

**Side of disease**
Benign breast diseases were found most common in the left breast (53%), in comparison to the right breast (42%). In rest 5% of cases, bilateral breast were involved (Table 4).

**Menstrual history**
Benign breast diseases were found most commonly in premenopausal women (97%) in comparison to postmenopausal women (3%) (Table 5).

**FNAC**
Breast lump investigated by FNAC, which was 95% consistent with lump of fibroadenoma and fibroadenosis (Table 6). Similar results were reported by study of Saraswat and Vyas, Kulkarni et al., and Koorapati and Bookya.

Rest 5% breast lumps were non-consistent. They were having pus 3%, milk 2%, and serous discharge 1% on histopathological examination in breast abscess, galactocele, and duct ectasia, respectively. Similar results were reported in previous studies of Kulkarni et al. and Koorapati and Bookya.

**Incidence with respect to pathology**
90% cases were found of fibroadenoma, which was similar to previous studies done by Saraswat and Vyas, Kulkarni et al., and Koorapati and Bookya and other were having fibroadenosis (5%), breast abscess galactocele (2%), and duct ectasia (1%) (Table 7).

Fibroadenoma was most common benign breast disease in age group of 15–25 years followed by fibroadenosis in the same age group. Breast abscess and galactocele were found in 26–35-year age group with a single case of duct ectasia in a 35-year female.

**Management**
All patients underwent surgical line of management except for fibroadenosis. In these 5% patients of fibroadenosis, conservative management was done with non-steroidal anti-inflammatory drugs, self-care, breast support (appropriate size bra), and dietary changes such as decreasing fat diet and monitoring for improvement.

Fibroadenoma (90%) and duct ectasia (1%) were treated by excision. Incision and drainage was done in breast abscess cases (3%) and galactocele (1%) managed by needle aspiration and antibiotics (Table 8).

Above management of different benign breast diseases was similar in previous study conducted by Kulkarni et al.

**Hospital stay (in days)**
Fibroadenosis cases are managed at outpatient department level. Cases of breast abscess, fibroadenoma, duct ectasia, and galactocele admitted to our hospital. Out of them, 9% of patients are admitted in hospital for 3 days, 49% for 4 days, and 37% for 5 days. The mean hospital stay was 4.28±0.621 days (Table 9).
**Limitations of the study**
This was a single-centered study.

**CONCLUSION**

- The most common benign breast disease encountered in clinical practice is fibroadenoma followed by fibroadenosis which is most common in 15–25-year age group and its presentation is found to be more common in married women.
- Common clinical presentation is lump. Mastalgia and discharge are the other symptoms. Involvement of the left breast is more common and seen predominantly in premenopausal women.
- 95% of FNAC reports were found to be consistent with breast lump. Surgical intervention is the mainstay of treatment in 95% cases of benign breast diseases with mean hospital stay of 4.28 days.

### Table 8: Management

<table>
<thead>
<tr>
<th>Management</th>
<th>Total no patients</th>
<th>Fibroadenoma</th>
<th>Duct ectasia</th>
<th>Breast abscess</th>
<th>Galactocele</th>
<th>Fibroadenosis</th>
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<tbody>
<tr>
<td>Excision</td>
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<td>90</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Incision and drainage</td>
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<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aspiration</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Conservative</td>
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<td>0</td>
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</table>

### Table 9: Hospital stay in days

<table>
<thead>
<tr>
<th>Hospital stay</th>
<th>Number of patients</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>3 days</td>
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<tr>
<td>4 days</td>
<td>49</td>
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</tr>
<tr>
<td>5 days</td>
<td>37</td>
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<tr>
<td>Total</td>
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</table>

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### REFERENCES


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SP, BPN- Definition of intellectual content, literature survey, prepared first draft of manuscript, implementation of study protocol, data collection, data analysis, manuscript preparation and submission of article, concept, design, clinical protocol, manuscript preparation, editing, and manuscript revision, design of study, statistical analysis and interpretation, review manuscript, review manuscript, literature survey, coordination and manuscript revision.

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