

Clinicopathological study of benign breast diseases in Bundelkhand regions



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ABSTRACT

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

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INTRODUCTION

Introduction benign breast disease is a neglected entity despite the fact that it constitutes the majority of breast complaints.¹ 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.²

Benign breast diseases can occur any time during the life span of a female.³ The ANDI classification of benign breast disease provides an overall framework for benign conditions of the breast that encompasses both pathogenesis and the degree of abnormality.³

Aims and objectives

- To analyze the percentage of incidence, age distribution, and other associated factors of benign breast disease
- To study the different modes of presentation of benign breast disease
- To study the clinicopathological correlation of benign breast diseases
- To study the various types of management with stress upon surgical management.

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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 postmenopausal 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 Vyas⁴ 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

Table 1: Age distribution in study

Age (in years)	Number of patients	Percentage
15–25	54	54.00
26–35	30	30.00
36–45	10	10.00
46–55	06	06.00

Table 2: Marital status

Marital status	Number of patients	Percentage
Married	61	61.00
Unmarried	39	39.00
Total	100	100

Table 3: Presenting symptoms in study

Presenting complain	Number of patients	Percentage
Lump	100	100.0
Mastalgia	06	06.00
Nodularity	00	00.00
Discharge	02	02.00
Others	00	00.00

Table 4: Side of disease

Side of disease	Number of patients	Percentage
Right	42	42.00
Left	53	53.00
Bilateral	05	05.00
Total	100	100.00

Table 5: Menstrual history

Menstrual history	Number of patients	Percentage
Postmenopausal	03	03.00
Premenopausal	97	97.00
Total	100	100.00

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,⁴ Kulkarni et al.,⁵ and Koorapati and Bookya.⁶

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,⁴ Kulkarni et al.,⁵ and Koorapati and Bookya.⁶

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.⁵ and Koorapati and Bookya.⁶

Table 6: FNAC

FNAC	Number of patients	Percentage
Consistent	95	95.00
Non-consistent	05	05.00
Total	100	100

FNAC: fine needle aspiration cytology

Table 7: Incidence with respect to pathology

Incidence	Number of patients	Percentage
Fibroadenoma	90	90.00
Fibroadenosis	05	05.00
Breast abscess	03	03.00
Galactocele	02	02.00
Duct ectasia	01	01.00
Total	100	100.0

Incidence with respect to pathology

90% cases were found of fibroadenoma, which was similar to previous studies done by Saraswat and Vyas,⁴ Kulkarni et al.,⁵ and Koorapati and Bookya⁶ 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.⁵

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).

Table 8: Management

Management	Total no patients	Fibroadenoma	Duct ectasia	Breast abscess	Galactocele	Fibroadenosis
Excision	91	90	1	0	0	0
Incision and drainage	03	0	0	3	0	0
Aspiration	01	0	0	0	1	0
Conservative	5	0	0	0	0	5

Table 9: Hospital stay in days

Hospital stay	Number of patients	Percentage
3 days	09	09.00
4 days	49	49.00
5 days	37	37.00
Total	95	95.00

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.

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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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