

Original Research

To study different types of benign breast diseases & their clinical and radiological presentation-a prospective study

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ABSTRACT:

Background: Benign breast disease in women is a very common finding and results in a diagnosis in approximately one million women annually. The management of benign breast changes includes clinical, radiological. Hence; the present study was conducted for assessing different types of benign breast diseases & their clinical and radiological presentation. **Materials & methods:** A total of 100 patients with benign breast lesions were enrolled. Only those patients were included which had positive history of presence of benign disorder or disease of the breast such as breast lump, breast pain and nipple discharge. Patients with presence of an obvious malignant pathology or positive history of who had been treated for malignancy earlier were excluded. Clinical examination was carried out. A preoperative pathological investigation (FNAC) was carried out. This was followed by core needle biopsy (Trucut biopsy) radiological investigation (USG or Mammography) was carried out. **Results:** On histopathologic examination, diagnosis of Fibroadenoma, Fibroadenosis and Abscess were seen in 47 percent of the patients, 19 percent of the patients and 14 percent of the patients respectively. Mastalgia, Intraductal papilloma and Antibioma were the main diagnosis in 7 percent of the patients, 4 percent of the patients and 4 percent of the patients respectively. Clinically, only breast lump was present in 57 percent of the patients, while breast lump with pain was present in 22 percent of the patients. Breast lump with nipple discharge was present in 3 percent of the patients while only breast pain was symptom in 11 percent of the patients. UGS/Mammography diagnosis of Fibroadenoma was confirmed in 53 cases, while Fibroadenosis was confirmed in 21 cases. **Conclusion:** Adequate knowledge of the spectrum of benign breast pathologies is essential. Good clinical evaluation along with investigations can narrow the spectrum of suspected lesions.

Key words: Benign, Breast diseases, Clinical

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INTRODUCTION

Benign breast disease in women is a very common finding and results in a diagnosis in approximately one million women annually.

An understanding of the hormonal and growth factor control of breast development and function is key to the rational and systematic evaluation and treatment of patients. A firm understanding of benign breast

disease is important since sequential steps are necessary to distinguish lesions which impart a high risk of subsequent breast cancer from those which do not.¹⁻³

The management of benign breast changes includes clinical, radiological, and if necessary histological diagnostic investigations to rule out malignancy; palliation of symptoms; and counseling and monitoring of patients at increased risk of breast cancer. Typical presenting symptoms such as pain, a palpable mass, and nipple discharge can be caused by a wide array of benign differential diagnoses and require targeted diagnostic imaging in addition to a comprehensive history and clinical examination.⁴⁻⁶ Hence; the present study was conducted for assessing different types of benign breast diseases & their clinical and radiological presentation.

MATERIALS & METHODS

The present study was conducted for assessing different types of benign breast diseases & their clinical and radiological presentation. Ethical approval was obtained from institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol. A total of 100 patients with benign breast lesions were enrolled. Only those patients were included which had positive history of presence of benign disorder or disease of the breast such as breast lump, breast pain and nipple discharge. Patients with presence of an obvious malignant pathology or positive history of who had been treated for malignancy earlier were excluded. Complete demographic and clinical details of all the patients

were obtained. Through clinical examination was carried out. A preoperative pathological investigation (FNAC) was carried out. This was followed by core needle biopsy (Trucut biopsy) radiological investigation (USG or Mammography) was carried out. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software.

RESULTS

In the present study, mean age of the patients was 29.8 years. Left side involvement occurred in 46 percent of the cases while right side involvement occurred in 49 percent of the cases. 4 percent of the patients belonged to rural residence while 56 percent of the patients belonged to urban residence. On histopathologic examination, diagnosis of Fibroadenoma, Fibroadenosis and Abscess were seen in 47 percent of the patients, 19 percent of the patients and 14 percent of the patients respectively. Mastalgia, Intraductal papilloma and Antibioma were the main diagnosis in 7 percent of the patients, 4 percent of the patients and 4 percent of the patients respectively. Clinically, only breast lump was present in 57 percent of the patients, while breast lump with pain was present in 22 percent of the patients. Breast lump with nipple discharge was present in 3 percent of the patients while only breast pain was symptom in 11 percent of the patients. In the present study, UGS/Mammography diagnosis of Fibroadenoma was confirmed in 53 cases, while Fibroadenosis was confirmed in 21 cases. Breast abscess was detected on USG/ Mammography in 8 cases, while Intraductal papilloma was detected in 6 cases.

Table 1: Histopathologic Diagnosis

Histopathologic Diagnosis	Number of patients	Percentage
Fibroadenoma	47	47
Fibroadenosis	19	19
Abscess	14	14
Mastalgia	7	7
Intraductal papilloma	4	4
Antibioma	4	4
Proliferative disease without atypia	5	5

Table 2: Clinical profile

Clinical manifestation	Number of patients	Percentage
Breast lump only	57	57
Breast lump with pain	22	22
Breast lump with nipple discharge	3	3
Breast lump with pain and nipple discharge	5	5
Breast pain only	11	11
Nipple discharge only	2	2

Graph 1: Demographic profile

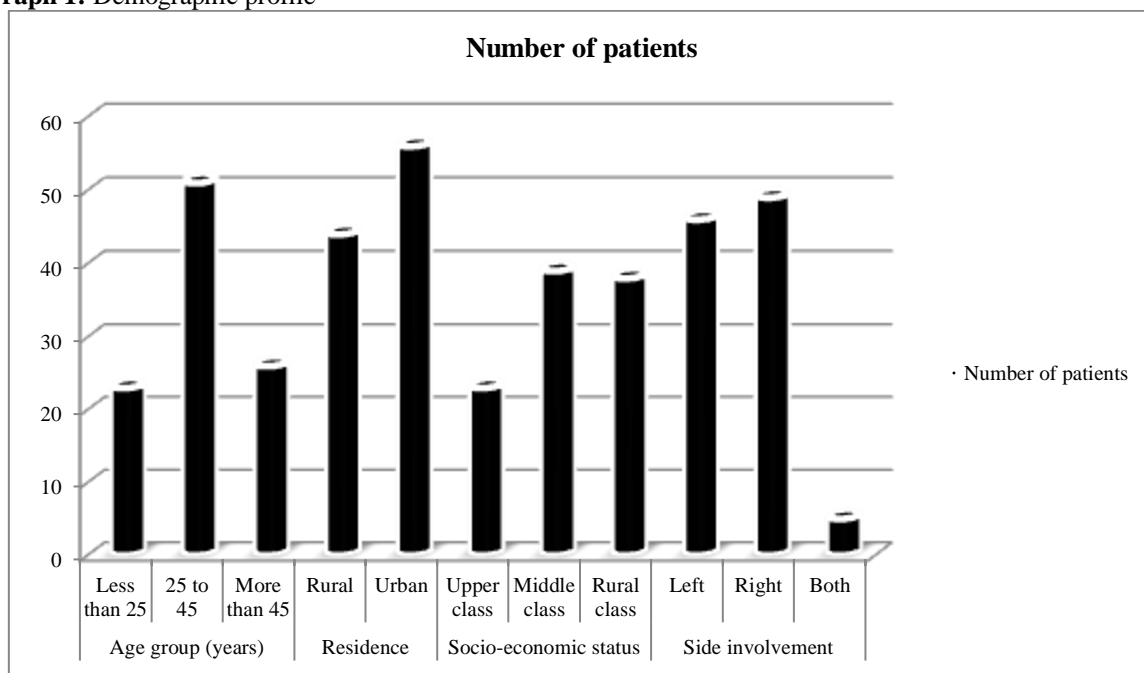


Table 3: Radiographic diagnosis

Histopathologic Diagnosis	Number of patents	USG/ Mammography diagnosis
Fibroadenoma	47	53
Fibroadenosis	19	21
Abscess	14	8
Mastalgia	7	5
Intraductal papilloma	4	6
Antibioma	4	3
Proliferative disease without atypia	5	4

DISCUSSION

Benign breast diseases constitute a heterogeneous group of lesions arising in the mammary epithelium or in other mammary tissues and they may also be linked to vascular, inflammatory or traumatic pathologies. Some lesions are palpable masses, which may be nodular, sometimes with specific or unspecific characteristics, but often (particularly in lesions of greater prognostic significance such as atypical hyperplasia) there are no specific clinical signs, and detection is difficult also at diagnostic imaging examinations. It is important to recognize benign breast diseases from the clinical signs as well as mammographic and ultrasound (US) findings, since most lesions found in women consulting a physician are benign.^{7, 8} In order to reduce the number of unnecessary biopsies and to avoid inappropriate diagnostic delays, the breast radiologist should also be aware that benign breast diseases may present atypical findings and that possible overlap of findings between certain types of benign and malignant diseases may occur.^{7- 10} Hence; the present study was conducted for assessing different types of benign breast diseases & their clinical and radiological presentation.

In the present study, mean age of the patients was 29.8 years. On histopathologic examination, diagnosis of Fibroadenoma, Fibroadenosis and Abscess were seen in 47 percent of the patients, 19 percent of the patients and 14 percent of the patients respectively. Mastalgia, Intraductal papilloma and Antiboma were the main diagnosis in 7 percent of the patients, 4 percent of the patients and 4 percent of the patients respectively. Ortiz BM et al evaluated the clinical, radiological and pathological correlation of the benign breast lesions. They concluded that the benign breast pathology must be studied carefully because the clinical and ultrasonic evaluation is not conclusive, and the histopathological evaluation of the biopsy specimens sometimes is necessary to discard malignancy.¹⁰ Benign breast diseases (BBD) constitute the greater of the breast lesions. These BBD are diverse, ranging from disorders of development, inflammatory lesions, proliferative diseases of the epithelium and stroma to different types of neoplasms. Though most of the available literature showed that breast lumps are mostly benign and non-proliferative epithelial lesions, it is known that certain benign breast diseases (BBD) are important risk factors for

breast cancers which can develop in either breast later.⁵⁻⁸

In the present study, clinically, only breast lump was present in 57 percent of the patients, while breast lump with pain was present in 22 percent of the patients. Breast lump with nipple discharge was present in 3 percent of the patients while only breast pain was symptom in 11 percent of the patients. Samal S et al assessed the pattern of benign breast diseases and its clinical, pathological and radiological correlation. A total of 200 females were included in the study. Fibroadenoma (55%) was the commonest diseases with presenting mostly at 20-24years of age. Clinical examination had accuracy of 88%, USG had accuracy of 77.3%, FNAC had 93% and mammography had 83.33% accuracy for diagnosing benign breast diseases. Benign breast diseases are common problems of 2nd and 3rd decade in females and raises considerable fear of malignancy.¹¹

In the present study, UGS/Mammography diagnosis of Fibroadenoma was confirmed in 53 cases, while Fibroadenosis was confirmed in 21 cases. Breast abscess was detected on USG/ Mammography in 8 cases, while Intraductal papilloma was detected in 6 cases. Uwaezuoke SC et al reviewed all cases of benign breast lesions with histopathology services for a comprehensive baseline data in our community for management, research and education. This was a multicentre retrospective descriptive study based on histopathological diagnosed benign breast lesions. A total of 228 benign breast lesions (68.3%) were seen among 334 histopathologically diagnosed breast diseases. Fibroadenoma was the most common benign breast disease (BBD) accounting for 45.6% of all the cases followed by fibrocystic change (23.1%). Inflammatory breast lesions constituted 8.3%. Benign breast diseases are the most common breast lesions.¹²

CONCLUSION

From the above results, the authors concluded that adequate knowledge of the spectrum of benign breast pathologies is essential. Good clinical evaluation

along with investigations can narrow the spectrum of suspected lesions.

REFERENCES

1. Blommers J, de Lange-De Klerk ES, Kuik DJ, Bezemer PD, Meijer S. Evening primrose oil and fish oil for severe chronic astalgia: a randomized, double-blind, controlled trial. *American Journal of Obstetrics & Gynecology* 2002;187(5):1389-1394.
2. Tarabishy Y, Hartmann LC, Frost MH, Maloney SD, Vierkant RA, Pankratz VS. Performance of the Gail model in individual women with benign breast disease. *Journal of Clinical Oncology* 2011;29(15_suppl):1525.
3. Tan BY, Acs G, Apple SK, et al. Phyllodes tumours of the breast: a consensus review. *Histopathology*. 2016;68:5–21.
4. Langer F, Hille-Betz U, Kreipe HH. [Papillary lesions of the breast] *Der Pathologe*. 2014;35:36–44.
5. Hamed H, Caleffi M, Chaudary MA, Fentiman IS. LHRH analogue for treatment of recurrent and refractory mastalgia. *Annals of the Royal College of Surgeons of England* 1990;72(4):221-224.
6. Mansel RE, Goyal A, Preece P, Leinster S, Maddox PR, Gateley C et al. European randomized, multicenter study of goserelin (Zoladex) in the management of mastalgia. *American Journal of Obstetrics & Gynecology* 2004;191(6):1942-1949.
7. Layon DR, Wang C, Roth S, Brooks AD. Is surgical excision necessary in pseudoangiomatous stromal hyperplasia? *Breast J*. 2016;22:595–596.
8. Virk RK, Khan A. Pseudoangiomatous stromal hyperplasia: an overview. *Arch Pathol Lab Med*. 2010;134:1070–1074.
9. Lee SJ, Trikha S, Moy L, et al. ACR Appropriateness Criteria evaluation of nipple discharge. *J Am Coll Radiol: JACR*. 2017;14:138–153.
10. Ortiz BM, Hernández DB et al. Benign breast diseases: clinical, radiological and pathological correlation. *GinecolObstet Mex*. 2002 Dec;70:613-8.
11. Samal S, Swain PK, Pattnayak S. Clinical, pathological and radiological correlative study of benign breast diseases in a tertiary care hospital. *Int Surg J* 2019;6:2428-32.
12. Uwaezuoke SC, Udoye EP. Benign breast lesions in Bayelsa State, Niger Delta Nigeria: a 5 year multicentre histopathological audit. *Pan Afr Med J*. 2014;19:394. Published 2014 Dec 18. doi:10.11604/pamj.2014.19.394.5717