(e) ISSN Online: 2321-9599

(p) ISSN Print: 2348-6805

ORIGINAL ARTICLE

Histomorphological assessment of breast lesions among 135 females

Lokesh Haswani

Assistant Professor, Department of Pathology, Medical College, Jodhpur, India

ABSTRACT:

Background: In India, breast cancer is the second most common malignancy after cervical cancer, with 20 out of every 100,000 women receiving a diagnosis. The present study evaluated the histomorphological spectrum of breast lesions in young females. **Materials & Methods:**135 females <30 years of age with breast lesions were enrolled. The location of the breast lesions was noted. Standard techniques were used for the histopathological evaluation, which included 10% formalin, paraffin embedding, and H&E staining. **Results:** Benign breast lesions found to be breast abscess in 54, accessory breast in 13, benign breast lesion in 7, lipoma in 3, fibroadenoma breast in 26, fibroadenomatosis in 3, granulomatous lesion in 2, benign fibrous histiocytoma in 2 and tubular adenoma in 3 cases. The difference was significant (P< 0.05). Malignant lesions were invasive ductal carcinoma breast in 6 and proliferative breast disease with atypia in 9 cases. The difference was significant (P< 0.05). The site of breast lesion was upper outer Quadrant in 82, lower Outer Quadrant in 10, Upper Inner Quadrant in 8, Lower Inner Quadrant in 15, Central Quadrant in 12 and Whole Quadrant in 8 cases. The difference was significant (P< 0.05). **Conclusion:** Rather than malignant tumors, benign lesions were present in most cases. Breast abscesses and benign breast lesions were common. The common site was in the upper outside quadrant.

Key words: Breast lesions, benign fibrous histiocytoma, fibroadenomatosis

Corresponding author: Lokesh Haswani, Assistant Professor, Department of Pathology, Medical College, Jodhpur, India

This article may be cited as: Haswani L. Histomorphological assessment of breast lesions among 135 females. J Adv Med Dent Scie Res 2015;3(2):304-307.

INTRODUCTION

In India, breast cancer is the second most common malignancy after cervical cancer, with 20 out of every 100,000 women receiving a diagnosis.[1] Breast lesions are the leading cause of sickness and mortality for women worldwide; very few cases involving men have been documented. Because breast screening is not practiced in developing nations, patients with palpable lumps are present.[2] However, the number of benign breast lesions exceeds that of malignant ones.Breast cancer accounts for about one-third of all cancers in females. The age standardized incidence rate (ASR) per 100,000 people worldwide is 53.8, while the crude incidence rate is 30.9.2.[3]

Benign breast diseases are more common than inflammatory and malignant breast disorders. Patients lack awareness and education, which leads to advanced sickness when they arrive. Different countries have different patterns and causes of breast disease.[4] Different kinds of breast neoplasms exist. Malignant breast lesions are less common than benign malignancies. Benign lesions of the breast usually manifest in the second decade of life.[5] Phyllodes tumor, fibroadenoma, lactating adenoma, and tubular adenoma are common benign tumors of the breast. Benign proliferative lesions include granulomatous mastitis, fibrocystic disease, and inflammatory lesions such as breast abscesses. Medullary malignancy, ductal carcinoma, lobular carcinoma, colloid carcinoma, and mucinous carcinoma are examples of melanogenic lesions.[6]The present study evaluated the histomorphological spectrum of breast lesions in young females.

MATERIALS & METHODS

The present study comprised of 135 females <30 years of age with breast lesions. Patients' written consent was obtained before starting the study.

Data such as name, age, etc. was recorded. The location of the breast lesions was noted. We obtained the specimens from the mastectomy, needle core biopsies, excisional biopsies, and breast trucut biopsies. Standard techniques were used for the histopathological evaluation, which included 10% formalin, paraffin embedding, and H&E staining. The results were statically analysed. P value less than 0.05 was set significant.

RESULTS

Table I Benign lesions

Benignlesions	Number	P value
Breast abscess	54	0.05
Accessory breast	13	
Benign breast lesion	7	
Lipoma	3	
Fibroadenoma breast	26	

Fibroadenomatosis	3	
Granulomatous lesion	2	
Benign fibrous histiocytoma	2	
Tubular adenoma	3	

Table I shows that benign breast lesions found to be breast abscess in 54, accessory breast in 13, benign breast lesion in 7, lipoma in 3, fibroadenoma breast in 26, fibroadenomatosis in 3, granulomatous lesion in 2, benign fibrous histiocytoma in2 and tubular adenoma in 3 cases. The difference was significant (P< 0.05).

Table II Malignant lesions

Malignant lesions	Number	P value
Invasive ductal carcinoma breast	6	0.05
Proliferative breast disease with atypia	9	

Table II, graph I shows that malignant lesions were invasive ductal carcinoma breast in 6 and proliferative breast disease with atypia in 9 cases. The difference was significant (P< 0.05).

Graph I Malignant lesions

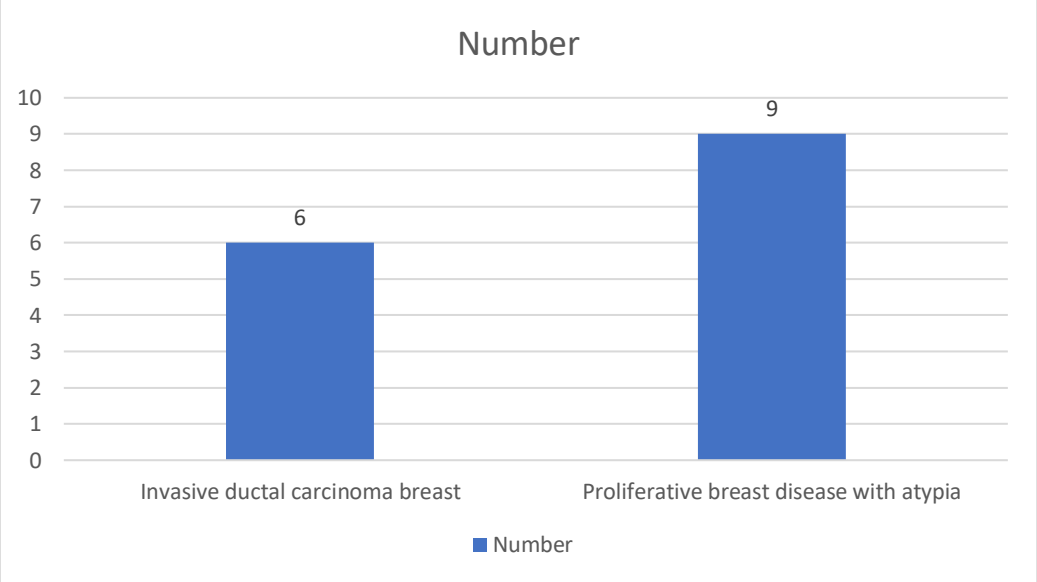

Table III Site of breast lesion

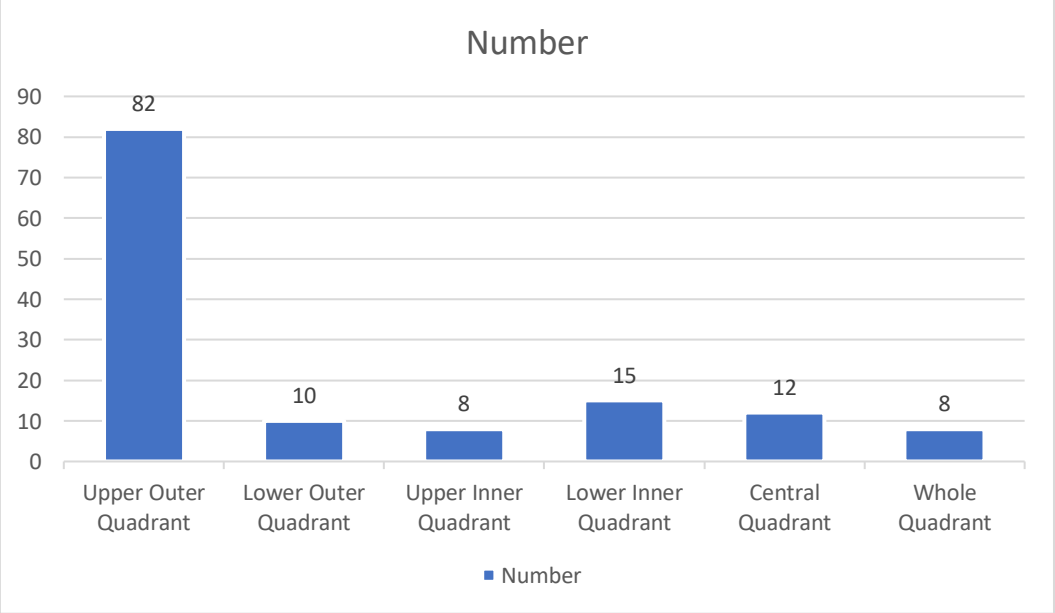

Table III shows that site of breast lesion was upper outer Quadrant in 82, lower Outer Quadrant in 10, Upper Inner Quadrant in 8, Lower Inner Quadrant in 15, Central Quadrant in 12 and Whole Quadrant in 8 cases. The difference was significant (P< 0.05).

DISCUSSION

The group of lesions known as breast illnesses is complex and exhibits a range of disease patterns, from benign breast disease to aggressive malignancies. Every year, about 200,000 new cases of breast lesions are identified. Of them, 19% to 34% of all malignancies in women are carcinomas of the breast. It is identified in 20 out of every 100,000 women in India and ranks as the second most frequent malignancy after cervical carcinoma.[7] When compared to inflammatory and malignant breast disorders, benign breast diseases are more common. Patients present with advanced disease because of a lack of knowledge and education. The cause and pattern of breast illness vary throughout nations.[8,9]The present study evaluated the histomorphological spectrum of breast lesions in young females.

We found that benign breast lesions found to be breast abscess in 54, accessory breast in 13, benign breast lesion in 7, lipoma in 3, fibroadenoma breast in 26, fibroadenomatosis in 3, granulomatous lesion in 2, benign fibrous histiocytoma in 2 and tubular adenoma in 3 cases. Zhou et al[10] found that of ten inclusive studies, nine were eligible for subsequent breast cancer risk of histological subtype, including 2,340 cases and 4,422 controls, and four were eligible for investigating the influence of family history on subtypes of BBD, including 1,377 cases and 2,630 controls. Relative to non-proliferative disease (NP), all subtypes of BBD increased subsequent risk, and risk for women with ALH (OR = 5.14, 95% CI 3.52-7.52) may be higher than for women with ADH (OR = 2.93, 95% CI 2.16-3.97). Compared to women without family history and proliferative disease, women with a first-degree family history and atypical hyperplasia (AH) were at highest risk (OR = 4.87, 95% CI 2.89-8.20). Relative to women without family history, women with a first-degree family history had an increased breast cancer risk in different histological subtypes of BBD except for AH.

We observed malignant lesions were invasive ductal carcinoma breast in 6 and proliferative breast disease with atypia in 9 cases. Eddo et al[11] found that during the 25-year-old study period, 1864 cases of BBD constituting 72.4% of all breast lesions were seen. The female to male ratio was 28.6:1. An increasing incidence of BBDs was observed. The overall mean age for BBD was 27.5 years, SD±11.3 with an age range of 9-84 years and a peak age occurrence in the third decade. The single most common lesion was fibroadenoma accounting for 43.1% of cases, followed by fibrocystic change (23.8%) with mean ages of 22.3 years and 30.2 years, respectively. Both lesions had a peak occurrence in the third decade. Other major lesions encountered were sclerosing adenosis (7.3%), atypical ductal hyperplasia (3.6%), and blunt duct adenosis (2.3%). Gynecomastia (2.1%) was the predominant lesion in males. Inflammatory lesions constituted 8.1% of cases while stromal and skin lesions accounted for 1.1% and 0.9% of cases respectively.

We found that site of breast lesion was upper outer Quadrant in 82, lower Outer Quadrant in 10, Upper Inner Quadrant in 8, Lower Inner Quadrant in 15, Central Quadrant in 12 and Whole Quadrant in 8 cases. In all, 95 women with breast tumors were examined in the study by Raju et al.[12] Of the ladies, 26 were under 30 while the remaining women were over 30. The majority found the lump on their own, and after four weeks, over 80% of them went to see the caregiver. 70.5% of the masses were benign, while 29.5% were malignant. Women under 30 were most likely to have fibroadenoma. With one exception, most of the cancer cases were in adults older than thirty. Overweight was the main risk factor that was substantially linked to cancer.

CONCLUSION

Authors found that rather than malignant tumors, benign lesions were present in most cases. Breast abscesses and benign breast lesions were common. The common site was in the upper outside quadrant.

REFERENCES

1. Tong FL. The role of fine needle aspiration cytology and needle core biopsy in the diagnosis and management of breast cancers. Cytopathology 2007;1(6):8-12.
2. Kokiwar RP, Kumar BH, Mubashare A. Epidemiological and Clinical profile of Breast Cancer patients at a tertiary care hospital in South India. Journal of Cancer Research and Therapeutics. 2011; 7(1).
3. Anyanwu SN. Temporal trend in breast cancer presentation in the third world. J Exp Clin Cancer Res 2008;27:17.
4. Guray M, Sahin AA: Benign breast diseases: classification, diagnosis, and management. Oncologist 2006, 11(5):435–449.
5. Siddiqui MS, Kayani N, Gill MS, et al. Breast diseases: a histopathological analysis of 3279 cases at a tertiary care centre in Parkistan. J Park Med Assoc 2003;53(3):94-7.
6. Thomas GW, Scott ER, Katherine DT, et al. An estimation of the global volume of surgery: a modeling strategy based on available data. Lancet 2008;372(9633):139-44.
7. Akarolo-Anthony SN, Ogundiran TO, Adebamowo CA. Emerging breast cancer epidermic: evidence from Africa. Breast Cancer Res 2010;12(Suppl 4):8.
8. Mansoor I; Profile of Female Breast Lesions in Saudi Arabia. JPMA. 2001; 51(7):243-246.
9. Aslam et al. Clinico- pathological profile of patients with breast diseases. Diagnostic Pathology 2013 8:77.
10. Zhou WB, Xue DQ, Liu XA, Ding Q, Wang S. The influence of family history and histological stratification on breast cancer risk in women with benign breast disease: a meta-analysis. Journal of cancer research and clinical oncology. 2011 Jul;137:1053-60.
11. Olu-Eddo AN, Ugiagbe EE. Benign breast lesions in an African population: A 25-year histopathological review

of 1864 cases. Nigerian Medical journal: journal of the Nigeria Medical association. 2011 Oct;52(4):211.
12. Raju GC, Jankey N, Naraynsingh V. Breast disease in young West Indian women: an analysis of 1051 consecutive cases. Postgraduate Medical Journal 1985; 65: 977-78.