

Original Research

Histopathologic Types of Benign Breast Lesions

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ABSTRACT:

Background: The present study was undertaken for assessing the histopathologic types of benign breast lesions. **Materials & methods:** The present study was undertaken for assessing the histopathologic types of benign breast lesions. A total of 30 patients of breast benign diseases were enrolled. The clinical details like age, sex, laterality were assessed. Macroscopic examination provided information regarding size, number and lesion location. All the lesions were evaluated by microscopic examination of Hematoxylin and Eosin stained tissue sections. All the results were recorded and analysed by SPSS software. Chi-square test was used for evaluation of level of significance. **Results:** Fibroadenoma was seen in 70 percent of the patients while Fibroadenoma with cystic changes was present in 13.33 percent of the patients. Intraductal papilloma was seen in 10 percent of the patients while Lipoma was seen in 6.67 percent of the patients. **Conclusion:** Breast lesions are a cause of concern as a few of them carry the potential risk of turning malignant. Timely excision, evaluation and confirmation of histological findings help us to differentiate benign from malignant lesions.

Key words: Breast lesions, Benign

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INTRODUCTION

The breasts are specialized organs that are located on the anterior chest wall. The female breast is greater developed than the male breast, as their primary feature is to produce milk for vitamins of the little one and child. Female hormones inclusive of oestrogen and progesterone are essential in promoting growth and changes that arise inside the breast, especially for the duration of pregnancy and the menstrual cycle.^{1,2} Benign Breast Diseases (BBDs) is a group of breast diseases which is not cancer. It is the most common cause of breast problems in females and it is more frequent than the malignant ones. In fact, it is at least 10 times more common than breast cancer in the west. Up to 30% of the women who suffer from BBDs will require treatment at some time in their lives.^{2,3} Formerly, the term fibrocystic disease was used to describe all benign conditions. This term, however, caused confusion when distinguishing between normal physiologic changes and pathologic ones. Subsequently, attempts were made to achieve uniformity in the classification of benign lesions of the breast, two of which are noteworthy. The etiology

and risk of BBDs have not been extensively studied, despite an increasing incidence of BBDs detected by population-based mammographic screening. However, the exact incidence rates are unexplored. Moreover, previous studies on BBDs have often been small, inconsistent in their pathological disease classification, and conducted before mammographic screening programs were introduced.^{4,5} Hormonal factors (i.e., reproductive and lifestyle factors that affect hormonal exposure, including exogenous hormone use) are well known to affect a woman's breast cancer risk, but little is known regarding hormonal factors and BBDs. Factors such as early menarche, regular and short menstrual cycles, nulliparity, older age at first birth, use of oral contraceptives and hormone replacement therapy (HRT), and high postmenopausal body mass index (BMI) are associated with a higher breast cancer risk, whereas longer breastfeeding duration and higher premenopausal BMI are associated with a reduced risk.⁶⁻⁸ Hence; under the light of above mentioned data, the present study was undertaken for assessing the histopathologic types of benign breast lesions.

MATERIALS & METHODS

The present study was undertaken for assessing the histopathologic types of benign breast lesions. A total of 30 patients of breast benign diseases were enrolled. The clinical details like age, sex, laterality were assessed. Macroscopic examination provided information regarding size, number and lesion location. All the lesions were evaluated by microscopic examination of Hematoxylin and Eosin stained tissue sections. All the results were recorded and analysed by SPSS software. Chi-square test was used for evaluation of level of significance.

RESULTS

Table 1: Histologic typing

Histologic typing	Number of patients	Percentage
Fibroadenoma	21	70
Fibroadenoma showing cystic changes	4	13.33
Intraductal papilloma	3	10
Lipoma	2	6.67
Total	30	100

DISCUSSION

Hormones and growth factors act upon stromal and epithelial cells to regulate mammary gland development, maturation and differentiation. Broadly summarized, estrogen mediates development of ductal tissue; progesterone facilitates ductal branching and lobulo-alveolar development; and prolactin regulates milk protein production. At puberty, estradiol and progesterone levels increase to initiate breast development.⁸⁻¹⁰ Hence; under the light of above mentioned data, the present study was undertaken for assessing the histopathologic types of benign breast lesions.

In the present study, a total of 30 patients with breast carcinoma were enrolled. Mean age of the patients was 52.8 years. Majority of the patients were of postmenopausal status. Left side involvement occurred in 60 percent of the patients while right side involvement occurred in 30 percent of the patients. Bilateral involvement occurred in 10 percent of the patients. Fibroadenoma was seen in 70 percent of the patients while Fibroadenoma with cystic changes was present in 13.33 percent of the patients. In a previous study conducted by Ali et al, authors analysed two hundred female patients presenting with breast lumps at surgical out door. Breast imaging and FNAC of lumps were also done. Final diagnosis was based upon histological examination of the tissues biopsied from the lump. After collecting data, written in proforma, window SPSS software was used to analyse the results. This study shows a high frequency of fibroadenoma (45%) in Pakistani females. Fibrocystic disease is second in frequency and accounts for 36% patients. 8% patients had intraductal papilloma and three percent suffered from duct ectasia. 5% patients had other conditions related to breast including two patients presenting with pre histological diagnosis of fibrocystic disease who turned out to be malignant

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after histopathology. Most of the patients had age range of 20-29 years. Fibroadenoma is the commonest of all benign breast diseases in Pakistani women. Fibrocystic change is the second in this regard. Benign lesions of the breast can resemble its carcinoma on clinical examination.¹¹

In the present study, intraductal papilloma was seen in 10 percent of the patients while Lipoma was seen in 6.67 percent of the patients. Khanzada TW et al determined the frequencies of various benign breast diseases (BBD) in female patients. Patients with obvious clinical features of malignancy or those who on work up were diagnosed as carcinoma were excluded from the study. A total of 275 patients were included in the study. About 44% (120/275) patients belonged to 3rd decade of life (age between: 21-30 years) followed by 33% from 4th decade (age between: 31 – 40 years). Fibroadenoma was the most common benign breast disease, seen in 27% (75/275) of patients, followed by fibrocystic disease seen in about 21% (57/275) patients. Benign Breast Diseases (BBD) are common problems in females of reproductive age. Fibroadenoma is the commonest of all benign breast disease in the set up mostly seen in 2nd and 3rd decade of life. Fibrocystic disease of the breast is the next common BBD whose incidence increases with increasing age.¹²

CONCLUSION

Breast lesions are a cause of concern as a few of them carry the potential risk of turning malignant. Timely excision, evaluation and confirmation of histological findings help us to differentiate benign from malignant lesions.

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