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ORIGINAL RESEARCH

Histopathological assessment of breast lesions- A clinical- pathological study

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***ABSTRACT*:**

Background: Breast lesions are heterogeneous diseases that consist of several distinct entities with remarkably different characteristic features. The present study was conducted to assess lesion of breast histopathologically. **Materials & Methods:** The present study was conducted on 120 breast specimens obtained from surgery department. The method of biopsy used was either open (excision and incision) or tru-cut needle biopsies depending on size and clinical parameters at presentation. **Results:** The maximum patients were seen in age group 40-60 years (60) followed by >60 years (35) and 20-40 years (25). The difference was significant (P< 0.05). Histological diagnosis was fibroadenoma in 30, fibrocystic disease in 25, benign phyllodes in 14, duct ectasia in 7, chronic mastitis in 12, granular cell tumour in 10, neurofibromas in 2, lactating adenomas in 4, lipomas in 6 and invasive lobular carcinomas in 10. The difference was significant (P< 0.05). The risk factors are smoking (12), alcohol consumption (10), sedentary lifestyle (25) and use of cream (30). The difference was non-significant (P> 0.05). **Conclusion:** Breast lesion is commonly seen pathology in females. Most commonly sen was fibroadenoma and fibrocystic disease.

Key words- Breast, Benign, Histopathology

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INTRODUCTION

Breast lesions are heterogeneous diseases that consist of several distinct entities with remarkably different characteristic features. Most of the breast lesions are well understood and well diagnosed while some of the unusual lesions and malignancies are less appreciated.[1] Majority of the breast lesions initially present with a lump in the breast which is very sensitive for female patients due to which they might not report timely to the doctor for an examination. A timely and accurate diagnosis of a breast lump is crucial and early intervention alleviates anxiety and can be lifesaving. In recent years, breast lesions have gained increased importance.[2]

Breast neoplasms are heterogeneous. Benign breast lesions being more common than malignant tumors. The incidence of benign breast lesions begins to rise during the second decade of life, peaks in the fourth and fifth decades. Increased risk of breast cancer is associated with proliferative and atypical lesions.[3] Diagnostic modalities such as mammography, ultrasonography, and fine-needle aspiration cytology are being increasingly used. In India, breast cancer forms the second most common malignancy after cervical cancer and is detected in 20/1,00,000 women.[4]

Breast cancer is curable if detected early and there are two major components of early detection of breast cancer: education to promote early diagnosis and screening. Breast self-examination (BSE), although not having been shown to be effective in reducing mortality, is still recommended as a general approach to increasing breast health awareness and thus potentially allow for early detection of any anomalies. Many studies have been done and published on the histopathology of breast lesions.[5] The present study was conducted to assess lesion of breast histopathologically.

MATERIALS & METHODS

The present study was conducted in the Department of Pathology, Rama Medical College and Hospital, Hapur, U.P., India. It comprised of 120 breast specimens obtained from surgery department. Ethical approval was obtained from institute prior to the study.

General information such as name, age, gender etc. was recorded. The records related to chest and spine x-rays, abdomino-pelvic ultrasound and liver function tests were obtained from concerned department. The method of biopsy used was either open (excision and incision) or tru-cut needle biopsies depending on size and clinical parameters at presentation. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Age groups (Years)	Number	P value
20-40	25	0.02
40-60	60	
>60	35	

Table I, graph I shows that maximum patients were seen in age group 40-60 years (60) followed by >60 years (35) and 20-40 years (25). The difference was significant (P< 0.05).

Graph I Distribution of patients

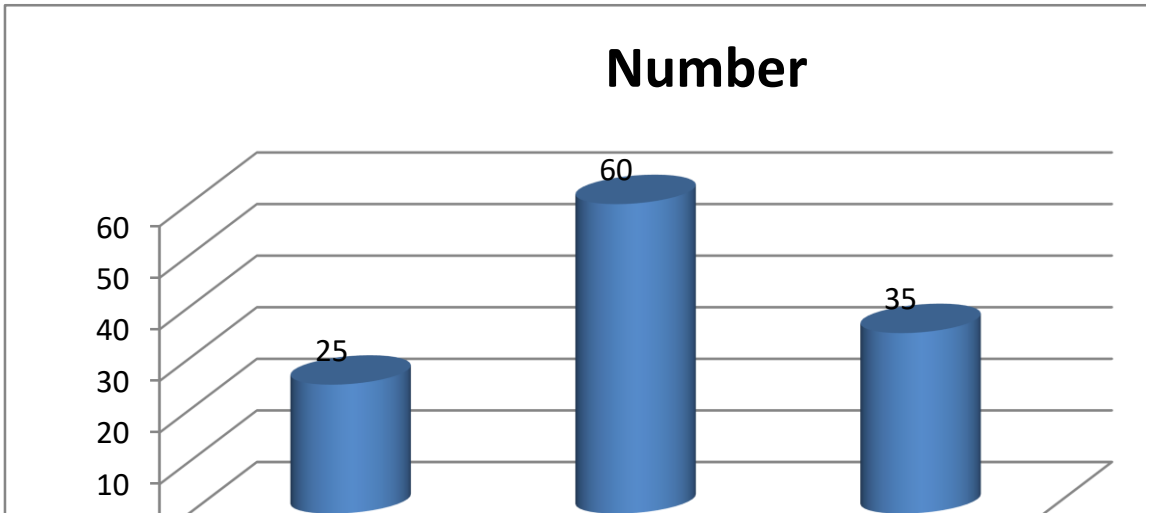
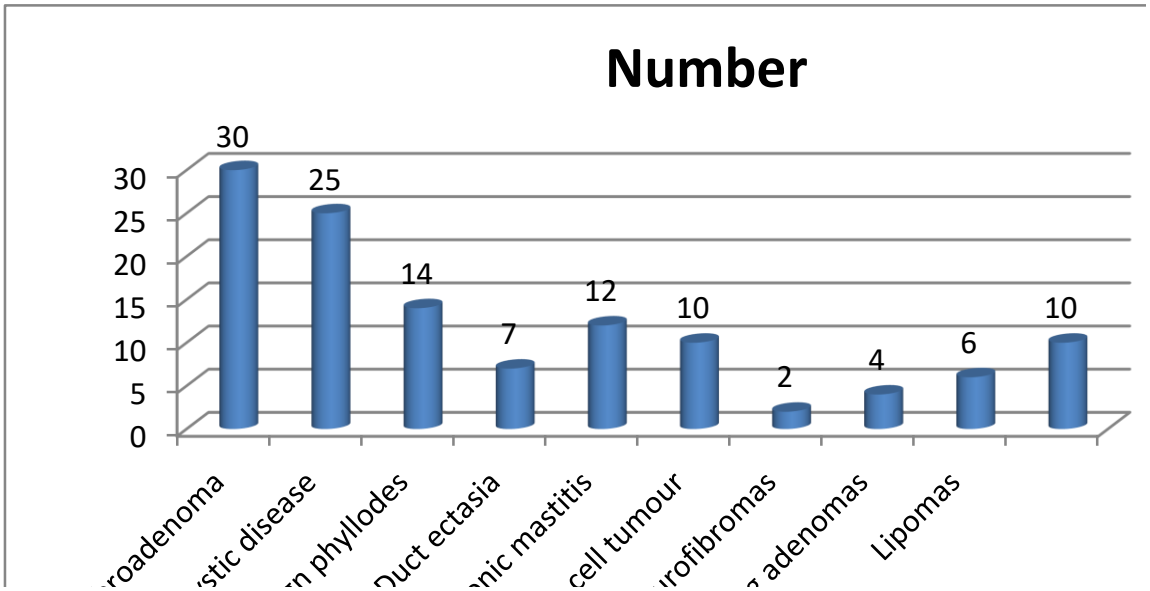


Table II Histological diagnosis of breast masses

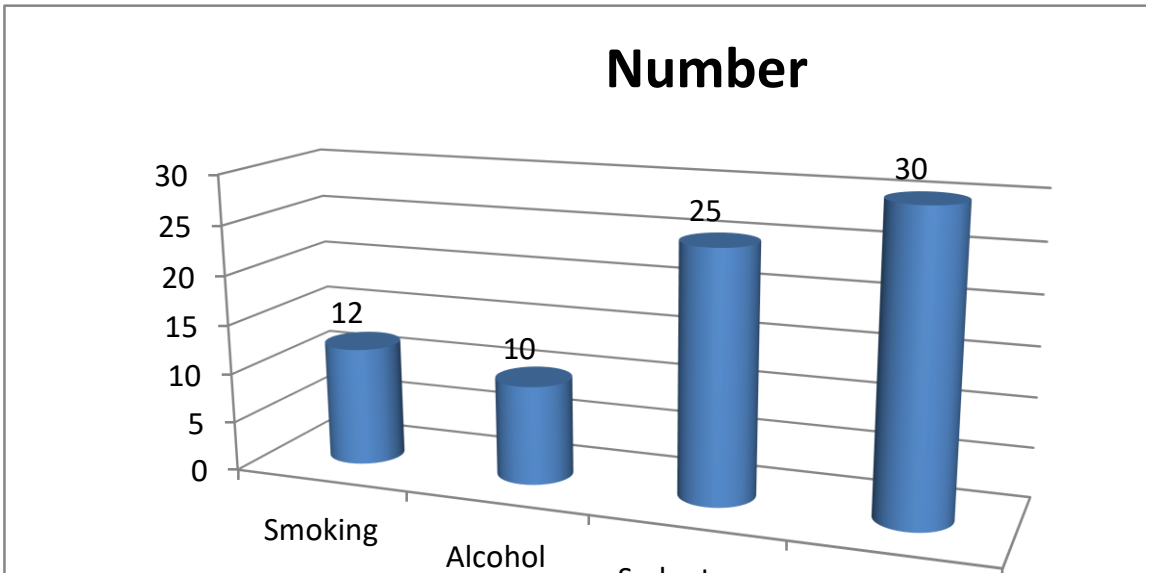
Diagnosis	Number	P value
Fibroadenoma	30	0.01
Fibrocystic disease	25	
Benign phyllodes	14	
Duct ectasia	7	
Chronic mastitis	12	
Granular cell tumour	10	
Neurofibromas	2	
Lactating adenomas	4	
Lipomas	6	
Invasive lobular carcinomas	10	

Table II shows that histological diagnosis was fibroadenoma in 30, fibrocystic disease in 25, benign phyllodes in 14, duct ectasia in 7, chronic mastitis in 12, granular cell tumour in 10, neurofibromas in 2, lactating adenomas in 4, lipomas in 6 and invasive lobular carcinomas in 10. The difference was significant (P< 0.05).

Graph II Histological diagnosis of breast masses



Graph III Risk factors of breast cancer



Graph III shows that risk factors are smoking (12), alcohol consumption (10), sedentary lifestyle (25) and use of cream (30). The difference was non- significant (P> 0.05).

DISCUSSION

Early detection and diagnosis can greatly increase chances for successful treatment and thus increasing awareness of the possible warning signs of the disease among the general public is a necessity.[6] The three screening methods recommended for breast cancer include breast self-examination (BSE), clinical breast examination (CBE) and mammography.[7] BSE is a cost-effective method of early detection of cancer of the breast especially in resource poor countries. More than 90% of cases of breast cancer can be detected by women themselves, stressing the importance of breast self-examination (BSE) as the key breast cancer detection mechanism. [8]The present study was conducted to assess lesion of breast histopathologically.

In present study, maximum patients were seen in age group 40-60 years (60) followed by >60 years (35) and 20-40 years (25). Ellis et al[9] found that there were 254 breast lesions, histologically diagnosed in 3 year review period. The overall mean age of patients with breast lesion was 25.18, SD ± 11.73 with a wide age range of 12–74 years.

Most common cases identified are benign 191(75.3%), followed by inflammatory 30(11.8%) and malignant lesions 30(11.8%). Most patients presenting with the complaint of pain have diagnosis of fibroadenoma 24 (63.2%) while patient with complain of lump also have the most common diagnosis of fibroadenoma 147 (72.8%).

We found that histological diagnosis was fibroadenoma in 30, fibrocystic disease in 25, benign phyllodes in 14, duct ectasia in 7, chronic mastitis in 12, granular cell tumour in 10, neurofibromas in 2, lactating adenomas in 4, lipomas in 6 and invasive lobular carcinomas in 10.

Oluwole et al[10] found that a total of 168 cases of breast lesions were evaluated, including benign and malignant cases. Relevant clinical data were recorded in a pro forma. Appropriate areas were selected from the specimens received, and after processing, sections were made from them. These were stained with hematoxylin and eosin and observed under microscope. The results were analyzed, which show that the benign breast disease (82.7%) is much more common than the malignant lesions (16%). Moreover, among all the lesions, fibroadenoma (50.5%) was seen to be the most common one.

We found that risk factors are smoking (12), alcohol consumption (10), sedentary lifestyle (25) and use of cream (30). Malik et al[11] in their study tissue for hematoxylin and eosin (H and E) sections was fixed in 10% formalin and subjected to routine paraffin-embedded processing and stained with H and E. The histopathological features were noted, and the tumors were diagnosed based on the WHO classification and graded adopting modified Bloom–Richardson grading system. Of the 120 specimens received, 116 specimens belonged to female patients (97%). The peak age of the occurrence of breast masses was in the 3rd decade (32% occurrence). Both malignant and non-malignant lesions were present in the specimens. Among the 98 benign lesions, 45 cases were of fibroadenoma (46%), 23 cases were of fibroadenosis (23%). Among the 22 malignant lesions, 17 cases were of infiltrative duct cell carcinoma (77%).

Kulkarini et al[12] in their study found that fibroadenosis is the next commonly occurring benign breast lesion. Fibroadenosis is also known as fibrocystic disease and it is a condition where the breasts are painful, lumpy, or doughy. Risk factors include an early age at the first menstrual period and late pregnancies or no pregnancies.

CONCLUSION

Author found that breast lesion is commonly seen pathology in females. Most commonly sen was fibroadenoma and fibrocystic disease.

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