STUDY OF THE HISTOPATHOLOGICAL ANALYSIS OF BREAST LUMPS

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Abstract:
Objective: To perform histological analysis of breast lumps.
Study Design: A prospective histopathological study.
Place and Duration: In the West Surgical department of Mayo Hospital Lahore for one year duration from June 2017 to June 2018.
Methodology: A prospective histopathological study was performed on 161 consecutive patients. Incisional biopsy, lumpectomy or mastectomy was performed in these patients with lump in the breast and a histological analysis was performed in the histopathology laboratory.
Results: According to the study, 30 years old and 97 cases did not show any malignant neoplasms; However, with the increase in age, it was observed that less than one in four cases was malignant between the ages of 31 and 40 and in four cases there was an increase in incidence. 1 out of 4 cases between the ages of 41-50 and 51-60 has malignancy. 61-70 years of age showed one out of three cases, while two of the three cases were between 71 and 80 years were malignant. Fibroadenoma was the most common benign tumor and infiltrated ductal carcinoma was the most common malignant tumor in our study.
Conclusion: Most of the lumps in the breast were benign and malignant in 1 out of 10. However, it is unlikely that malignancy will be below than 30 years of age; However, after 40 years of age, the likelihood of malignancy rises to a quarter and this emphasizes the need for detection methods for women over 40 years of age. Fibroadenoma was the most common breast lesion in women under 30 years of age.
Key words: Breast lumps, biopsy, sequential analysis.

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INTRODUCTION:

The lump of the breast is a sign of concern for most educated, professional and enlightened women. All breast lumps are not malignant[1-3]. In a younger patient, lump who appears to be benign in the clinical examination will not be labeled as benign by surgeons until he demonstrates as benign on histopathological report[4]. Histological diagnosis is the gold standard for histological sections. This study reviewed the tissue diagnosis in patients presenting to a general surgery unit with a complaint of a lump or lump in one or two breasts (both men and women)[5]. This study revealed a detail of benign and malignant breast outbreaks. In addition, this study can also provide patient counseling, awareness about breast cancer in general, and important data for a meaningful screening program.

MATERIALS AND METHODS:

This prospective histopathological study was held in the West Surgical department of Mayo Hospital Lahore for one year duration from June 2017 to June 2018.

All these patients with breast lumps were initially examined in the outpatient department. Depending on the size of the breast, clinical presentation, and age of the patient, lumps, mastectomy, incisional biopsy or ultrasound-guided biopsy excision were performed by the surgeon. In 10% formalin fixed sample was taken in histopathology laboratory. A general depiction of the specimen was made in the laboratory and the tissue slides stained with hematoxylin and eosin. The definitive diagnosis was made by the histopathologist and reports were usually present in the laboratory three or four days after surgery.

RESULTS:

A total of 161 patients were examined; 11 males and 150 females with male / female ratio 1: 13.6. The age range was 15 to 80 years. The total number of cases was 161 (11 patients with bilateral lesions) and 1: 8.5 (17 to 144) cases with benign malignancy. Malignant cases accounted for 9.47% of the total number of cases (17 of 161). Among the benign cases, fibrocystic disease was 19.87%, fibroadenoma 53.41% respectively. The percentage of patients with cancer growth gradually increased with age. The mean age of the patients with carcinoma was 48.8; 39.5 years of fibrocystic disease and 24.4 years of fibroadenoma. Benign phyllodes tumor represented 3.1% (5 patients) of total cases. Histological diagnosis and frequency of cases (table).

Table No 01: Histological Diagnosis and Frequency of lumps

Histological Diagnosis	Quantity	Percentage
Fibroadenoma	86	53.41%
Fibrocystic Disease	32	19.87%
Invasive Ductal Carcinoma	14	8.69%
Benign Phyllodes Tumor	5	3.1%
Gynaecomastia	4	2.48%
Duct Ectasia	4	2.48%
Mastitis	10	6.21%
Invasive Lobular Carcinoma	2	1.24%
Medullary Carcinoma	1	0.62%
Duct Papilloma	3	1.86%
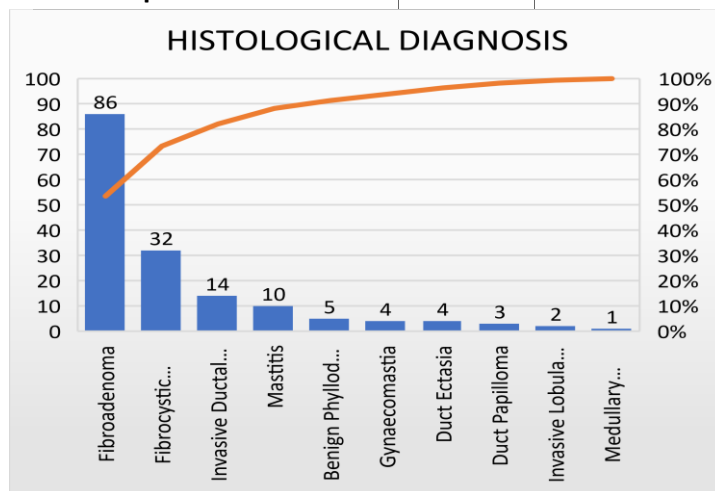
Histopathology of malignant cases revealed invasive ductal carcinoma (82.35%) in 14 of 17 patients and spinal cord (0.62%) in the remaining three patients and invasive lobular carcinoma in 2 (1.24%) patients. Four of the 11 male patients in this study were gynecomastia; four had fibrocystic disease and three had invasive ductal carcinoma.

DISCUSSION:

General perception is that most of the lumps in the breast are benign and only one of them has been proven to be malignant[6]. In this study, no neoplasm was seen in 85 cases under 30 years of age. As the age increased, the patients were between 31 and 40 years old, one of the 4 biopsies was malignant, and one of the four biopsies for groups of 41 to 50 to 51 to 60 was observed. 61-70 years group showed one of the three malignant tumors, while two of the three spindles revealed malignant tumors in the 71-80 age group[7]. Breast cancer is less common in women under 30 years of age and increases as the age of the patient increases. Fibroadenoma was the most common breast tumor with 53.41%, fibrocystic disease with 19.87% and benign phyllodes tumor in 3.10%[8]. This is based on the fact that the most common breast swelling in women under 30 years of age is fibroadenoma[9]. Patients with fibrocystic disease were between 31-50 years of age. In this study, the mean age of patients with fibrocystic disease was 39.5 years, and this was slightly higher than another study with a age of 31.8. Fibrocystic disease was an important breast lesion in this study because of its high frequency after fibroadenoma and also because of its several subtypes similar to the clinical and radiological aspects of carcinoma[10]. In fibrocystic diseases, atypical epithelial hyperplasia is important because of its association with carcinoma[11]. In this study, two patients with invasive ductal carcinoma revealed fibrocystic changes in the breast lumps[12-13]. The mean age of the patients with breast cancer was 48.8 years. This was close to another study showing a mean age of 50.1 years, and the most common histopathological type was invasive ductal carcinoma[14]. In summary, to increase awareness among the public, this study revealed that most of the breast chunks are benign and have a 10-fold chance of biopsy for women. Given that some histological features of breast pellets such as atypical ductal hyperplasia are premalignant lesions, histological evaluation of all breast pellets is strongly recommended to evaluate malignancy routinely[15]. In addition, it was seen that it increased to a quarter of the probability of malignancy above the age of 40 years.

CONCLUSION:

This certainly supports detection programs for women over 40 years of age. The most common breast lesion in women under 30 years of age was fibroadenoma and invasive ductal carcinoma is the most common histopathologic type of breast cancer.

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