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Research Article

THE INCIDENCE OF BENIGN & MALIGNANT BREAST LESIONS AT BAHAWAL VICTORIA HOSPITAL, BAHAWALPUR

¹Dr Saad Karim, ²Dr Novera Ansar, ³Dr Tehreem Zia

¹Quaid e Azam Medical College, Bahawalpur, ²Quaid e Azam Medical College, Bahawalpur,

³Quaid e Azam Medical College, Bahawalpur.

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Abstract:

Aim: To determine the prevalence of benign and malignant breast lesions in the tertiary care hospital.

Materials and Methods: This is a cross-sectional, descriptive, prospective study conducted at the Surgical Unit-II of Bahawal Victoria Hospital, Bahawalpur for one-year duration from May 2019 to May 2020. The duration of the study was 1 year, i.e. from January 2010 to January 2011. All patients aged 16 to 70 years who presented with a breast tumor to the surgical outpatient clinic of Lahore Nawaz Sharif University Hospital, January 2010 to January 2011 were included in a research. All patients were interviewed and examined by a senior registrar, and then by consultants at the outpatient clinic. All patients were examined (ultrasonography, mammography). Fine needle aspiration cytology and biopsies were performed by general surgeons and reported by a pathologist consultant at the same hospital.

Results: A total of 200 patients had a breast lump, of which 160 (80%) were benign and 40 (20%) were malignant (according to histopathology). Among benign lesions, 85 (42.5%) are fibroadenoma, 50 (25%) are fibrocystic lesions, and 25 (12.5%) are abscesses. Of the 40 malignant cases, 30 (15%) are ductal carcinomas, 8 (4%) are lobular carcinomas and 2 (1%) are medullary carcinomas.

Conclusion: Breast tumor is the most common symptom of breast cancer in women and is a rapidly growing problem in Pakistan. The incidence of malignancies is higher in women over the age of 30. Invasive ductal carcinoma is the most common subtype. Contrary to some international studies, Pakistani women present malignant changes in their breasts at an earlier age. Therefore, it justifies the need for a nationwide screening program and regular breast self-examination by women in Pakistan.

Key words: breast injury, lump, biopsy

Corresponding author:**Dr. Saad Karim,**

Quaid e Azam Medical College, Bahawalpur..

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INTRODUCTION:

In the West, breast cancer is one of the most common malignancies in women, and it is common to see a doctor with a breast lump. As a result of benign or malignant changes, lumps in the breast may appear and the way they are treated varies from patient to patient. Mild breast disease can be classified in two ways. One classification is based on histopathology and the other based on the clinical picture as shown in Tables 1 and 24. In the US, some studies have shown that 60% of patients have mild breast disease and 10% have cancer. Breast cancer is the most common malignant tumor among women in Pakistan and also in the USA. In the United States, breast cancer is the second most common cause of death. Therefore, it is important to diagnose breast cancer early so that you can also start treatment early, as it can reduce the high mortality rate from breast cancer. The available literature emphasizes the importance of a triple assessment, ie clinical examination, mammography and fine needle aspiration cytology. Local examination of the breast tumor and the patient's age provide very valuable information about the nature of the tumor and histopathology is necessary to confirm the diagnosis. Histopathological diagnosis can be made by FNAC (Fine Needle Aspiration Cytology) or by Biopsy (open or with a trucut needle). The literature also shows the importance of mass population screening with modern mammography.

MATERIALS AND METHODS:

This is a cross-sectional, descriptive, prospective study conducted at the Surgical Unit-II of Bahawal

Victoria Hospital, Bahawalpur for one-year duration from May 2019 to May 2020. All patients aged 16-70 years who presented with a breast tumor to the surgical outpatient clinic of the ZUS Hospital in Lahore Nawaz Sharif from January 2010 to January 2011 were included in the study. All these patients were thoroughly interviewed and examined. FNAC biopsies were performed to diagnose the tissues. These breast lesions requiring surgical treatment (breast abscesses, malignant breast lesions or giant fibroadenoma) were surgically removed by mastectomy, etc. All breast abscesses were removed by incision and drainage. Breast malignancies requiring CRT (chemotherapy) were referred to the INMOL Hospital. All patients were followed up to 1 year postoperatively. SPSS version 17 was used for data analysis.

RESULTS:

A total of 200 patients developed a breast lump, of which 160 (80%) were benign and 40 (20%) were malignant (according to histopathology). Fibroid adenoma (85 cases, 42.5%) was the most common cause of breast lump, followed by fibrocystic disease (50 cases, 25%), malignant neoplasm (40 cases, 20%), and finally breast abscesses (25 cases, 12.5%). Of the 40 malignant cases, 30 (15%) are ductal carcinomas, 8 (4%) are lobular carcinomas and 2 (1%) are medullary carcinomas. Of these malignant cases, 24 (12%) had stage III disease, 10 (5%) had stage IV disease, and 6 (3%) had stage II disease. These steps are shown in Table 3. The mean age of patients with these benign and malignant lesions is shown in Tables 4 and 5.

Table 1: Pathologic classification of benign breast disease

Non-proliferative lesions Cysts Mild hyperplasia of the usual type Epithelial-related calcifications Fibroadenoma Papillary apocrine change Proliferative lesions without atypia Sclerosing adenosis Radial and complexing sclerosing lesions Moderate and florid hyperplasia of the usual type Intraductal papillomas Atypical proliferative lesions Atypical lobular hyperplasia Atypical ductal hyperplasia
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Table 2: Clinical classification of benign breast disease

Physiologic swelling and tenderness Nodularity Breast pain Palpable lumps Nipple discharge
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Breast infections and inflammation

Table 3: Staging for Breast cancer by American Joint Committee of Cancers

Stage 0: Carcinoma <i>in situ</i> (non-invasive cancer). Stage I: Tumor is small (2 cm or less), and cancer has not spread to the lymph nodes.
Stage II: Tumor is small, but cancer has spread to the lymph nodes; OR tumor is moderate in size (2 to 5 cm), with or without lymph node involvement; OR tumor is large (over 5 cm), but cancer has not spread to the lymph nodes.
Stage III: Tumor is large, and cancer has spread to the lymph nodes; OR tumor is of any size, but lymph node involvement is substantial; OR tumor is of any size, but cancer has spread to chest wall or skin.
Stage IV: Cancer has metastasized beyond the underarm lymph nodes to other parts of the body.

Table 4: Malignant cases

Diagnosis	=n	Mean age
Invasive ductal carcinoma	30(15%)	47
Lobular carcinoma	8(4%)	50
Medullary carcinoma	2(1%)	41
Total	40(20%)	

Table 5: Benign Lesions

Diagnosis	=n	Mean age
Fibroadenoma	85(42.5%)	23
Fibrocystic disease	50(25%)	39
Breast Abscess	25(12.5%)	27
Total	160(80%)	

Surgical management:

All patients diagnosed with fibrocystic disease were sedated and asked for a follow-up visit. In all patients diagnosed with fibroadenomas, they were surgically removed for cosmetic reasons, and secondly, the patients were afraid of cancer. All the breast abscesses drained. Stage III patients underwent modified radical mastectomy + axillary dissection followed by CRT. Patients with stage IV disease had reliever surgery + CRT. Patients with stage II disease had a simple mastectomy - axillary dissection.

DISCUSSION:

Breast cancer is one of the most common causes of increased mortality and morbidity among women worldwide, and is one of the major cancers in the West. The most common manifestation of breast cancer is a breast lump. If a woman examines her breast at regular intervals and feels any lump and reports to the doctor at an early stage, then early diagnosis and treatment are possible. All breast lumps are presumed to be malignant unless proven otherwise. In our study, the most common changes found in women were benign (80%) followed by malignant (20%). In our study, the most common histopathological diagnosis was fibroadenoma (42.5%). This incidence of fibroadenomas in our study is higher than in England (7.7%) and the US (18.5%), but lower than in the Caribbean in Trinidad

(39.3%). This increased incidence of fibroadenomas in Pakistan is unclear, but can be attributed to a racial predisposition that requires further research and evidence. Many other researchers reported in their studies that fibroadenoma is the most common benign tumor of the female breast. In our study, malignant changes included 40 cases (20%). Invasive ductal carcinomas (30 cases) were the most common breast malignancies in our study. The average age of its occurrence is 47 years. Our study results differ from those in Japan and the United States, where breast malignancy is the third most common lesion (3.6%). In this study, the mean age at diagnosis is lower than in Western countries, where most cancers occur in postmenopausal women and the mean age is 54 years. Some studies in Pakistan have clearly shown that in the Pakistani population, women between the ages of forty and fifty are most often affected by malignant changes in the breast. Therefore, the majority of patients reporting to our breast disease clinics are women before the menopause and in the younger age group. A Korean study reported a high incidence of breast cancer in premenopausal women. In our study, fibrocystic disease was found in 25% of all cases. Compared to international studies, fibrocystic breast disease is the most common benign breast disease in the US (33.9%) 14 and the UK (37%).

CONCLUSION:

Breast tumor is the most common symptom of breast cancer in women and is a rapidly growing problem in Pakistan. The incidence of malignancies is higher in women over the age of 30. Invasive ductal carcinoma is the most common subtype. This study also shows that, unlike some international studies, Pakistani women have malignant changes in their breasts at an earlier age. Therefore, it justifies the need for a nationwide screening program and regular breast self-examination by women in Pakistan.

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