CLINICOPATHOLOGICAL STUDY OF BREAST LESIONS IN A TERTIARY HOSPITAL OF RAJASTHAN

General Surgery

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ABSTRACT

Objectives: Breast carcinoma is the most common malignant tumor and the leading cause of carcinoma death in women worldwide. The present study was undertaken to assess various clinical parameters and to evaluate correlation with histopathological analysis in breast lump patients.

Material and methods: It is a retrospective study performed at Pacific Institute of Medical Sciences, Udaipur over a period of 2 years from April 2016 to April 2018.The study encompasses 50 cases presenting to the surgical outdoor or Gynecology outdoor with the clinical features suggestive of lump breast. Diagnosis was made after detailed examination and investigations. Definitive surgery was done followed by adjuvant treatment.

Results: All the patients were female. Age of the patients ranges from 10 to 80 years with the mean age of 34.8 years. Out of 50 cases, 37(74%) were benign lesions and 10 (20%) malignant and 3 (6%) were of inflammatory pathology. Most common location was upper outer quadrant(42%). Most common benign breast disease was Fibroadenoma (32%) followed by fibrocystic disease (26%). Most common malignant lesion in present study was invasive ductal carcinoma (16%). Lymph node involvement was present in only 18% of cases.Surgical management was considered the treatment of choice. Most common procedure done was lumpectomy (in 72% cases) followed by Modified radical mastectomy (in 20% cases). Simple mastectomy and microdochectomy were done in 4% cases each.

Conclusion: Understanding importance of diagnosis and triple assessment and planning for effective management either surgical or conservative is the key to management of breast lesions.

Introduction:

Breast carcinoma is the most common malignant tumor and the leading cause of carcinoma death in women, with more than 10, 00,000 cases occurring worldwide annually (1). In India, breast cancer is the second most common malignancy in females after cervical cancer and is detected in 20/1,00,000 women.

Breast lesions have gained increasing importance and attained global attention because of increasing mortality and morbidity caused by breast cancer, which has become one of the leading causes of death among women.

Breast lumps are localized swellings that feel different from the surrounding breast tissue. It is a symptom /sign for a variety of conditions which on most occasions are nonmalignant. Evaluation of breast lumps in young females is essential to identify patients with benign proliferative lesions of the breast. Transition from normal to cancer begins by proliferation, then progresses to atypia & finally arrives at neoplasia (2).

The general approach to evaluation of breast cancer has become formalized as triple assessment: clinical examination, imaging (usually mammography, ultrasonography, or both), and histopathological assessment. Increased public awareness and improved screening have led to earlier diagnosis, at stages amenable to complete surgical resection and curative therapies. Improvements in therapy and screening have led to improved survival rates for women diagnosed with breast cancer. The present study was undertaken to assess various clinical parameters and to evaluate correlation with histopathological analysis in breast lump patients.

Material and methods:

It is a retrospective study performed at Pacific Institute of Medical Sciences, Udaipur over a period of 2 years from April 2016 to April 2018.

The study encompasses 50 cases presenting to the surgical outdoor or Gynecology outdoor with the clinical features suggestive of lump breast underwent a detailed history taking procedure, general and local examination. Patients were then subjected to routine blood investigations, Mammogram, Ultrasonography, FNAC and/or Core biopsy. After diagnosis, definitive surgery was done followed by adjuvant treatment (chemotherapy, radiotherapy, hormone therapy or a combination of these) based on histopathological report.

Results:

All the patients were female. Age of the patients ranges from 10 to 80 years with the mean age of 34.8 years. Benign lesions were mostly seen in second and third decade of life while malignancy seen after fifth decade. Age wise distribution of all the diseases we studied is shown in table.1

It was observed that among all the quadrants involved in cases of lump, the majority was constituted by the outer upper quadrant (42%) followed by the nipple areola complex (24%). Table.2

Out of 50 cases, 37(74%) were benign lesions and 10 (20%) malignant and 3 (6%) were of inflammatory pathology. Most common benign breast disease was Fibroadenoma (32%) followed by fibrocystic disease (26%). Table.3

Most common malignant lesion in present study was invasive ductal carcinoma (16%) followed by invasive lobular carcinoma (2%). One case of ductal carcinoma-in-situ was also found in the study. Table.4

3 cases of inflammatory breast lesions were present in present study which included 1 case each of non-specific mastitis with abscess, granulomatous mastitis and duct ectasia. Table.5

Clinically palpable breast lumps were classified as per size. 4 patients presented with a lump of size less than 2 cm. 34 patients presented with a lump of size 2-5cms and 12 patients has a lump of size more than 5cms.

Lymph Node involvement was a critical aspect of the study and involvement was analysed, out of 50 patients, only 9 patients (18%) were having lymphadenopathy. Axillary lymph node were involved in 10% of cases followed by supraclavicular (6%) and cervical (2%).

Surgical management was considered the treatment of choice. Most common procedure done was lumpectomy (in 72% cases) followed by Modified radical mastectomy (in 20% cases). Simple mastectomy and microdochectomy were done in 4% cases each.

Post operative complication developed in 6 patients. Wound infection occurred in 3 patients, hemorrhage occurred in 2 patients while 1 patient developed wound dehiscence.

Discussion:

The study reveals that benign breast disease presents in many ways ranging from simple mastitis to well defined lumps in the breast. Breast

lumps are one of the most common presentations in women, although a lot of research on etiopathogenesis, diagnosis, prevention and management is being pursued, after the development of FNAC and core biopsy the diagnosis has changed drastically thus the diagnosis is easy, quick, reliable and well in the comfort of the patient.

The mean age for breast disease in our study is 34.8 years which is much lower compared to that in the western literature where the mean age is around 54 years.

The maximum numbers of benign breast lesions were in the age group of 21-40years and maximum numbers of malignant lesions were seen in the age group above 50 years. Our study coincided with the studies of Mahua Choudhary et al (1985), and Reeni Malik et al (2003) (3).

The present study reported malignant lesions after 5th decade of life which was comparable to the result obtained in the study by Malik R et al (2003) (3),Mudholkar et al (2012) (4) and Ibrahim et al (2015)(5). Khemka et al.(6) observed that benign lesions of breast were more commonly seen in younger age groups with maximum number of patients found in the age group 30-34 years. Ganiat et al.,(7) reported maximum number of patients with malignant lesions in the fourth to seventh decade of life.

In the present study, a higher incidence of benign breast lesions (76%) was noted than malignant lesions (16%). The findings are comparable with that of Oluwayle and Freeman.(8) Fibroadenoma had the highest incidence in our study among the non-malignant breast lesions, which is comparable with the study of Saltzstein and Pallock (9). In the current study, invasive ductal carcinoma is the most common malignant lesion which is similar to the observations of Kumar (10). We reported 8% cases of inflammatory lesions, which is comparable to the study done by Rathi et al (2015) (11).

Although the majority of cases of breast lumps are diagnosed as benign but there is increasing trend in malignancy so every lump should be diagnosed by FNAC, sonomammography and biopsy to rule out the malignancy.

Conclusion:
In our study, benign breast disease was the most commonly identified disease. Fibroadenoma was most common among benign disease while invasive ductal carcinoma was found to be most common malignant lesion. Understanding importance of diagnosis and triple assessment and planning for effective management either surgical or conservative is the key to management of breast lesions.

Conflict of interest:
No conflicts of interest exist for these authors. No relevant financial relationship exists between the authors and procedures or products used in this manuscript.

Tables:
Table.1 Age wise distribution of the inflammatory, benign and malignant breast lesions

S.No.	Age Group	No. of cases of Benign lesions	No. of cases of Malignant lesions	No. of cases of
1	<10	0 (0%)	0 (0%)	0 (0%)
2	11-20	1 (2%)	0 (0%)	0 (0%)
3	21-30	11 (22%)	0 (0%)	2 (4%)
4	31-40	14 (28%)	0 (0%)	0(0%)
5	41-50	8 (16%)	0 (0%)	1 (2%)
6	51-60	3 (6%)	4 (8%)	0 (0%)
7	61-70	0 (0%)	4 (8%)	0 (0%)
8	71-80	0 (0%)	2 (4%)	0 (0%)
9	Total	37 (74%)	10 (20%)	3 (6%)

Table.2 Distribution according to quadrant

S.No.	Quadrant	No. (%)
1	Outer upper quadrant	21 (42%)
2	Outer lower quadrant	10 (20%)
3	Inner upper quadrant	03 (6%)
4	Inner lower quadrant	02 (4%)
5	Nipple areola complex	12 (24%)
6	Diffuse	01 (2%)
7	Axilla	01 (2%)

Table.3 Histopathological type and frequency of occurrence of Benign breast lesions.

S.No.	Type	Number	Percentage
1.	Fibroadenoma	16	32%
2.	Fibrocystic disease	13	26%
3.	Sclerosing Adenosis	4	8%
4.	Fibroadenosis	2	4%
5.	Tubular adenoma	2	4%
6.	Total	37	74%

Table.4 Histopathological type and frequency of occurrence of Malignant breast lesions.

S.No.	Type	Number	Percentage
1.	Invasive ductal carcinoma	8	16%
2.	Invasive lobular carcinoma	1	2%
3.	Carcinoma in-situ (ductal)	1	2%
4.	Total	10	20%

Table.5 Histopathological type and frequency of occurrence of Inflammatory breast lesions.

S.No.	Type	Number	Percentage
1.	Non-specific Mastitis with abscess	1	2%
2.	Granulomatous mastitis	1	2%
3.	Duct ectasia	1	2%
4.	Total	3	6%

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