Original Article

Breast Lumps

Patterns and Percentages of Pathological Lesions in Clinically Palpable Breast Lumps

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ABSTRACT

Objectives: To find out patterns and percentages of pathological lesions in clinically palpable breast lump(s).
Study Design: Cross-sectional study
Place and Duration of Study: This study was conducted at the Surgical unit-I of Peoples Medical College, hospital of Nawabshah from March 2015 to April 2017.
Materials and Methods: In sample size, a total number of 230 female patients with ages from 16 to 70 years having clinically palpable breast lump(s) were enrolled after having ultrasound. While patients with suspicious lump (s) in breast were subjected to mammography before having Tru-cut (core) biopsy. Referred patients having already histopathological reports, cysts on ultrasound or patient having previous surgeries on breast were not enrolled in this study. All the data was entered in SPPS version 20 and statical analysis was done.
Results: In total number of 230 patients, the clinically palpable lumps were most common in left breast 141 (61%) then in right breast 82 (36%) and 7 (3%) were bilateral.
Conclusions:A clinically suspicious mass should be biopsied, regard less of imaging findings. The percentages of benign breast disease pattern (67.40%) in clinically palpable lump are higher than malignant (32.60%) in present study.
Keywords: Breast lumps, Pathological lesions of breast, carcinoma breast.

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INTRODUCTION

The palpable breast masses varies from innocent to uncertain and confusing complex entities and impel women to have medical attention.[1]
Every breast mass must be considered malignant until, proved otherwise, as these masses can be very abysmal and treacherous. As only in America about 230, 480 women are diagnosed with breast cancer annually, and 39, 520 women die from this disease.[2] Global cancer statistics show that breast cancer is the most frequently diagnosis cancer and the leading cause of cancer death among females, accounting for 23 percent of total cancer cases and 14 percent of cancer deaths in women across all population groups.[3] Benign as well as neoplastic breast lesions are common in Pakistan, while due to illiteracy major strata of society does not follow self-examination or screening mammography, further the information on the epidemiology of breast cancer is very limited in our part of world.[4]
Due to constrained resources of health care system, with lack of an early cancer detection program the majority of women presenting with advanced, symptomatic stage at our part of world, where cure becomes impossible.[5] The scientific diagnosis with triple assessment reduce the mortality and increase the standard of the treatment.[6] In common practice of breast surgeons, the algorithms for clinical and imaging evaluation of palpable masses are stratified by the age of the women, ultrasound below 30 years and mammography above 30 years of age. In palpable masses, image guidance may improve diagnosis accuracy, but not all cancers are detectable on mammography, hence every clinically suspicious mass should be biopsied regardless of imaging findings, as 10 to 15 percent of such lesions can be mammo-graphically occult.[7]
A complete clinical breast examination (CBE) includes an assessment of both breasts with chest, axillae, and regional lymphatics. Benign masses generally cause no skin changes and are smooth, soft to firm, and mobile, with well-defined margins. While, Malignant masses are mostly hard, immobile, and fixed to surrounding skin and soft tissue, with poorly defined or irregular margins.[8] Digital palpation of the breast is effective in detecting masses and can determine whether a mass is

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benign or malignant. But CBE alone is not adequate for definitive diagnosis of breast cancer.[8,9]

This study was carried out to find out patterns and percentages of pathological lesions in clinically palpable breast lump(s).

MATERIALS AND METHODS

This cross-sectional study was carried out in surgical Unit-I of Peoples Medical College, tertiary care 1500 bed hospital of Nawabshah from March 2015 to April 2017.In sample size, a total number of 230 female patients with ages from 16 to 70years having clinically palpable breast lump(s) were enrolled after having ultrasound. While patients with suspicious lump (s) in breast were subjected to mammography before having Tru-cut (core) biopsy. The informed written consent was obtained from each patient as per study policy. Only solid lump (s) found on ultrasound were under taken for Tru-cut biopsy under local anaesthesia using 14- to 18- gauge cutting needle and two to four slender cores of tissue were taken for histopathology, which was done by expert pathologists. Referred patients having already histopathological reports, cysts on ultrasound or patient having previous surgeries on breast were not enrolled in this study. A pre-formed structured proforma was used to note the demographic profile, site, size, consistency of lump(s), status of a axillary lymph nodes, and ultrasonic, mammographic and biopsy reports along with stages of disease in cases of malignancy. All the data was entered in SPPS version 20 and statical analysis was done.

RESULTS

In total number of 230 patients, 93 (40%), 80 (35%) and 57 (25%) were in age groups of 16-30, 31-40 and 40-70 years respectively. 190 (82%) were married. The clinically palpable lumps were most common in left breast 141 (61%) then in right breast 82 (36%) and 7 (3%) were bilateral.

Table No. 1: Pattern of pathological lesion

	Frequency No.	Percentage
Fibroadenoma	98	42.60%
Intraductal carcinoma		
- Early.	51	22.10%
- Late.	24	10.50%
Fibrocystic disease	24	10.50%
PhylloidesTumours	09	3.91%
Mastitis / Inflammatory Lesions	10	4.34%
Duct Papilloma	02	0.86%
Fat Necrosis	05	2.17%
Cyst & Lipoma	02	0.86%
Epithelial Hyperplasia	02	0.86%
Duct Ectasia	03	1.30%

Upper and outer quadrant was the most commonly involved quadrant of breast for 122 (53%) cases in this study.

While, the pattern of various pathological lesions with frequencies and percentages in these patients are shown in table no. 1.

Regarding fibroadenoma, 98 (42.60%) were in younger and reproductive population of this study. The cancer patients in age group 31 – 40 and 40 – 70 were18 (7.82%) and 57 (24.78%) respectively and infiltrating ductal carcinoma was the most common sub – pattern in 62/75 (83%)patients, then was 9/75 (12%) mucinous and remaining 4/75 (5%) were with medullary carcinoma. Among breast cancer patients 5/75 (6.66%), 28/75 (37.34%), 30/75 (40%) and 12/75 (16%) were in TNM stages of I, II, III and IV respectively.

The percentages of benign breast disease pattern (67.40%) in clinically palpable lump are higher than malignant (32.60%) in present study.

DISCUSSION

The present study has discovered various patterns of pathological lesions in clinically palpable breast lumps with the combined results from triple assessment to have 100 percent diagnostic accuracy. Apart from objectives of this study, it also have been revealed that benign masses are easily diagnosed on ultrasound than malignant masses and this observation is line with findings reported by Mansoor et al.[10] Clinically palpable breast lumps have potentially been posing a serious challenge with urging on immediate evaluation in this apprehensive era of breast cancer.[11] This study noted for greater number of benign and less number of malignant cases in line similar to Dominguez et al.[12], Meena et al[13] and Sohail et all.[14]

In this study the percentages of the breast lumps were more in younger age groups in comparison to other studies.[11,15]

The pattern and percentage of benign breast lumps in the present study with fibroadenoma (42.60%) fibrocystic disease (10.50%), phylloidstumours (3.91%) and mastitis (4.34%) are similar in observation by Tiwari et al[16] and Qasim M et al.[17]

In the present study, 32.60% of malignant lesions were common in the age group of 31-70 years. Intraductal carcinoma was the most common malignancy in our findings which correlates with other studies.[18] The 51 number of women with early breast carcinoma (22.10%) was greater than late carcinoma (10.50%). This indicates that awareness of breast diseases is on increase in our society as the same is noted by Sohail et al in Pakistan.[14] In this study, authors have realized that one cannot overlook the importance of triple assessment for diagnosing the breast lumps, specially in cases which are atypical or suspicious on any single isolated investigation of FNAC or imaging.

CONCLUSION

A clinically suspicious mass should be biopsied, regard less of imaging findings.The percentages of benign breast disease pattern (67.40%) in clinically palpable lump are higher than malignant (32.60%) in present study.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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