

The Clinicocytopathological Study of the Breast Lumps beyond 25 Years in A Tertiary Care Unit –Sialkot

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ABSTRACT

Objective: To study the cytopathological pattern of breast lumps in relation to the clinical findings above 25 years of female.

Study Design: Descriptive study

Place and Duration of Study: This study was conducted at the Surgical Department of Allama Iqbal Memorial Teaching Hospital Sialkot from 1stJan 2014 to Dec 2018.

Materials and Methods: A total of 2000 breast lump patients visited the OPD, only 325 of which have been diagnosed from 2014 to 2018 in 40.21 mean age group same for four years.

Results: A total of 325 cases were studied, with the mean age of 40.21 years; the most involved site was left (52%) as compared to right (47.06%). The commonest lesions in descending order were fibroadenoma (56%), carcinoma (27%) and abscess(14%). The data was analyzed through SPSS 20.

Conclusion: The commonest cytopathological lesion is fibroadenoma, followed by carcinoma. Early detection and diagnosis is required to reduce mortality and morbidity significantly.

Key Words: Inflammatory lesions, malignant disease, phylloides, fibrocystic

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INTRODUCTION

Breast is one of the modified sweat glands, which gets its cyclic changes throughout the life of a woman. It may present as inflammatory or neo-plastic lesions,^{1,2} for which women get alarmed to be investigated and are compelled to seek treatment. In females Breast development occurs at the age of puberty and serves the purpose of feeding their offsprings.³

In USA, it has been found that sixty percent patients have benign breast diseases and ten percent have malignancy.⁴ Breast carcinoma is one of the commonest cause of death in Pakistan, while in USA lung carcinoma is the commonest cause of death.^{5,6} The benign breast diseases are more common as compared to breast cancer including fibroadenoma, considered to be the most common benign breast disease.^{7,8}

The diagnosis of any breast lump should be through triple assessment, which includes clinical breast examination, radiological and pathological investigations.

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This is because it is very important to differentiate between benign and malignant breast lesions, as it concerns all women presenting with breast lump. We still need more public awareness about the risks of breast lumps and its associated morbidity and mortality, for earliest consultation and treatment.⁹

There is effect of various hormones on this complex structure of female breast, giving rise to various palpable lesions ranging from inflammation, fat necrosis, hematoma, solid tumors with a suspicion of carcinoma with a strong family history.

The sensitivity and specificity of breast examination is determined to be fifty four percent and ninety four percent respectively.¹⁰

Because of the increasing awareness among young females, they are visiting outpatient departments but certain age groups are still not aware of the poor outcomes of breast lumps after the age of twenty five. The incidences vary in different parts of the world in different age groups.

Breast cancer is one of the commonest cancers in the world, present both in developed and developing countries. In developed countries it is becoming more common due to greater life span with improved health care and adoption of western life style.¹¹

The rationale of our study was to ascertain the incidences of breast lumps among age group above twenty five. As, some are anxious about their palpable lumps and some are ignorant, therefore there is rising trend of carcinoma of breast due to progression of age with all risk factors.

MATERIALS AND METHODS

A total of 2000 breast lump patients visited the OPD, only 325 of which have been diagnosed from 2014 to 2018 in 40.21 mean age group same for four years. A thorough study was obtained with general physical examination, local examination, ultrasonographic, mammography, and excision biopsy. The data was analyzed. Age group below twenty five was excluded, as there are very scarce chances of malignancy in that age group.

RESULTS

The most involved site was left 169 (52.00%) as compared to the right side 153 (47.06%) while only 03(0.92%) cases were of bilateral site, as shown in the graph below.

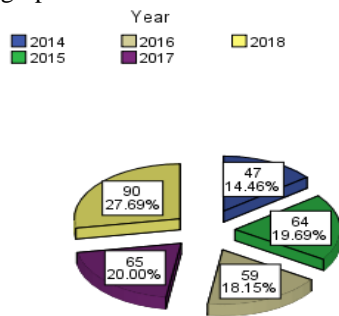


Figure No.1:

Table No.1:

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Right	153	41.61	11.941	.965	39.71	43.52		
Left	169	39.05	11.663	.897	37.28	40.82	20	84
Bilateral	3	33.67	6.506	3.756	17.50	49.83	27	40
Total	325	40.21	11.820	.656	38.92	41.50	20	84

Table No.2: Multiple Comparisons

(I) Pathology3	(J) Pathology3	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Carcinoma	Fibroadenoma	11.914*	1.359	.000	8.64	15.19
	Others	13.864*	1.799	.000	9.53	18.19
Fibroadenoma	Carcinoma	-11.914*	1.359	.000	-15.19	-8.64
	Others	1.950	1.611	.681	-1.93	5.83
Others	Carcinoma	-13.864*	1.799	.000	-18.19	-9.53
	Fibroadenoma	-1.950	1.611	.681	-5.83	1.93

Table No.3:

		Pathology3			Total	
		Carcinoma	Fibroadenoma	Others		
Age_Cat	<35	Count	11	93	34	138
		% within Age_Cat	8.0%	67.4%	24.6%	100.0%
	35-50	Count	46	77	17	140
		% within Age_Cat	32.9%	55.0%	12.1%	100.0%
	51-60	Count	20	10	3	33
		% within Age_Cat	60.6%	30.3%	9.1%	100.0%
>60	Count	11	2	1	14	
	% within Age_Cat	78.6%	14.3%	7.1%	100.0%	
Total		Count	88	182	55	325
		% within Age_Cat	27.1%	56.0%	16.9%	100.0%

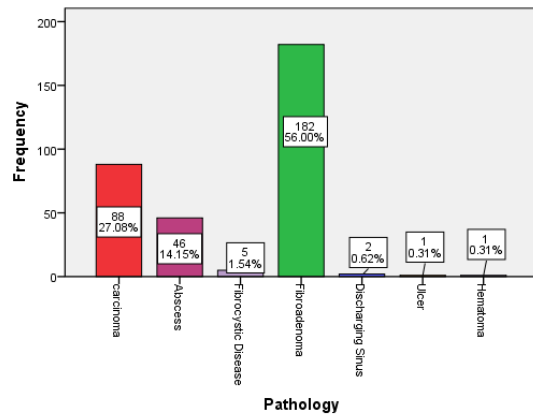


Figure No.2:

The pathology in order of commonest lesions were found to be fibroadenoma 182(56%), carcinoma 88 (27.08%), abscess 46(14.15%), fibrocystic disease 5(1.54%), discharging sinus 2 (0.62%), ulcer 1(0.31%), hematoma 01(0.31%)

The commonest age for malignant diseases 46 (32.9%) was 35 to 50 years whereas the other lesions were 127(92%).

The data analyzed both descriptive and stastical data, one way ANOVA applied between age groups and within groups which are as follows.

Table No.4:

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.939 ^a	6	.000
Likelihood Ratio	69.284	6	.000
Linear-by-Linear Association	51.117	1	.000
N of Valid Cases	325		

DISCUSSION

Every female gets breast changes during her pubertal, pregnancy and post pregnancy changes; and before and after menopause, leading to stromal and epithelial changes for which various tests like FNAC were done to determine the exact pathology of the breast lesion,¹² mammography was also carried out above twenty five years of age in order to confirm the diagnosis.

Majority of the lesions were on the left side of the breast as compared to the right side. This finding was consistent with study by Isaac U and colleagues, while Talpur A et al also noted the same findings.¹³⁻¹⁴ While study by Singh SK showed right side to be 54.84% and left 45%. All lumps of whatsoever volume were mostly present in the upper outer quadrant while the inflammatory lesions were most commonly in the inner quadrant. Therefore, findings are consistent with those often one study, the cytopathological diagnosis in order of preference from abscess > inflammatory lesion > benign lesion > malignant lesion, the left side was found to be more involved. One study which was consistent with the study carried out by Basale et al 95% cases were found in left breast.¹⁵

Inflammatory Lesions: Inflammatory lesions 46 (14.15%) mostly involved the lactating mothers with left side of breast mostly involved as compared to right side, this also include cases of antibioma and tuberculosis and our study is in consistent with the study carried out by Ami et al and Baplist et al.¹⁶

Benign Lesions: The frequency of fibro adenoma was found to be 182(56%) in our study which is in consistent with the study carried out by Alpura and colleagues, who reported it was most common benign lesion in breast lump, while in other studies carried out by Rashid et al showed that 42% of patients with fibro adenoma, while 47% in study of Jeddah. Our and other studies frequencies are much higher than England (7.7%) and USA (8.5%)¹⁷. The reasons are not known but it could be the racial predisposition. Few researchers described it as most common benign tumour in female, few patients presented with bilateral fibroadenoma which is less in number as compared to study done by Onighol et al where it was 0.9%.¹⁸

Malignant Lesions: This pathology was found in 88(27.08%) which is in consistent with studies carried out in the past,¹⁹ in one study invasive ductal cell carcinoma was the most common, consistent with past studies²⁰.

Phylloides Tumour: It was found in six patients out of total number of subjects since it is a very rare entity with 2 to 4,4% as reported in various review literature²¹, the youngest female who has been presented with this rare sort of entity was 12 years age female in Ojanda R, A et al²².

Fibrocystic Disease: It comprised of 05(1.54%) of total number of cases, our study is consistent with studies carried out in USA 33.9% and UK 37%.²³

CONCLUSION

Benign Breast lesions are the commonest lumps in the form of fibroadenomas, while invasive ductal cell carcinoma are most commonly reported tumors on FNAC, still considered to be a useful diagnosing tool for assessing Breast lump patterns to reduce the mortality and morbidity significantly.

Author's Contribution:

Concept & Design of Study: Sajid Hussain
 Drafting: Hira Shahid
 Data Analysis: Ume Habiba
 Revisiting Critically: Javed Mughal
 Final Approval of version: Sajid Hussain

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

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