

A Retrospective Study on the Incidence of Breast Carcinoma in a Tertiary Care Hospital

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ABSTRACT

Introduction: Breast cancer is the most frequent cancer in women following lung cancer worldwide. The study aimed to look into the estimates of breast cancer patients in the tertiary care hospital.

Material and Methods: A retrospective study for a period of 3 years was under taken. 428 breast lumps presenting to the departments of surgery, radiotherapy and oncology were included in the study.

Results: Out of the 428 breast lumps, 176 cases were fibroadenoma breast, 29 were phylloid tumour, 9 were fibrocystic disease, 2 were duct papilloma, 3 were duct ectasia and 20 were inflammatory. Infiltrating ductal carcinoma with non-specific features was the commonest type, found in 168 patients. Other types include ductal carcinoma insitu 8 cases, 6 cases of infiltrating ductal carcinoma of medullary type. 5 cases were of invasive lobular type and 2 cases were Paget's disease of nipple.

Conclusion: India is experiencing an unprecedented rise in the number of breast cancer and is having a lower mean age at presentation compared to what has been reported in the advanced countries of the world.

Keywords: Breast cancer, breast lump, epidemiology, infiltrating duct cell carcinoma

INTRODUCTION

Cancer is one of the major health concerns worldwide, the year 2012 witnessing 14.1 million new cases and a global mortality of 8.2 million due to the noxious cancer disease.¹ While lung cancer was the most common cancer worldwide contributing to 13% of the total number of new cases diagnosed in 2012 in both the sexes, breast cancer was the most commonly diagnosed cancer in women constituting 25.2% of all new cases.² Cancer is one of the top 10 causes of death in India. In India, breast cancer is the second most common cancer (after cervical cancer) with an estimated 115,251 (22.2% of all new cancer diagnoses) new diagnoses and the second most common cause of cancer-related deaths with 53,592 (17.2% of all cancer deaths) breast cancer deaths in 2008.⁴ Presently 75,000 new cases occur in India every year.⁵ Following the diagnosis in the OPD, workup and staging, and depending upon the stage of the disease, the patient undergoes multimodal treatment, surgery, chemotherapy, radiotherapy and hormonal therapy. This study was aimed to look into the incidence of breast carcinoma among the patients presenting to the surgery department with breast lumps in Andhra Medical College.

MATERIAL AND METHODS

The present study was a retrospective study for a period of 3 year from 01.11.2012 to 30.11.2015. As this study was a retrospective study, no ethical issues or consent from the patient was needed. 428 patients presenting to the surgical department

and diagnosed and/or admitted for evaluation of breast lump were taken into consideration. The cases admitted into the radiotherapy and oncology departments for neo-adjuvant or chemotherapy (Stage III and IV breast cancer cases) were also included. The breast biopsies of these cases were sent to the pathology department, after MRM in case of operable or true-cut biopsies in case of inoperable cases were cross-checked and analyzed.

STATISTICAL ANALYSIS

SPSS version 21 was used for generating tables and graphs. Results are based on descriptive statistics.

RESULTS

A total of 428 breast lumps were diagnosed and treated during this period. 176 cases were of fibroadenoma breast, 29 were reported as phylloid tumour, 9 were of fibrocystic disease, 2 were duct papilloma, and 3 had duct ectasia. 20 cases were of inflammation (19 cases of breast abscess and 1 case of chronic abscess/antibioma). The age of presentation was from 15 years to 81 years.

Out of these 428 breast lumps, 189 cases were of breast cancer. The age of presentation of breast cancers was from 24 years (youngest patient) to 81 years (oldest patient) with a mean of 47.8 years. The most common age group was 40 – 49 years with 58 cases (30.69%), then 50 – 59 years with 49 cases (25.93%), followed by 30 – 39 years with 43 cases (22.76%), 60-69 years with 29 cases (15.35%), 70 – 79 years with 6 cases (3.18%), 20 – 29 years with 3 cases (1.59%) and there was also one case (0.5%) of 81 years.

Infiltrating ductal carcinoma with non-specific features was the commonest type, found in 168 patients (88.89%) out of the total 189 cases. Other types include ductal carcinoma insitu 8 cases (4.23%), 6 cases (3.17%) of infiltrating ductal carcinoma of medullary type. 5 cases (2.65%) were of invasive lobular type and 2 cases (1.06%) were of Paget's disease of nipple.

DISCUSSION

The aim of this retrospective analysis was to study the incidence of breast cancer at a tertiary care hospital. The results of the study showed that in a total of 189 breast cancer patients, the

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common age group was 40 – 49 years with 58 (30.69%) cases, followed by 50 – 59 years with 49 (25.93%) cases and then 30 – 39 years age group with 43 (22.76%) of cases. According to these statistics it can be said that women of the middle age group, third-to-fifth decade (30 – 59 years), 79.38% of cases are at a higher risk of developing breast cancer in the local set-up as also reported in studies from India and other Asian countries.⁵⁻⁷ However, reports from the western world show that the female breast carcinoma is predominantly seen in the fifth and sixth decade. In the present study only 18% of the breast cancer patients are in the fifth and sixth decade.

In our study 46 (24.35%) breast cancer patients were below 40 years of age while Saxena et al. (2005)⁸ had reported 22% and Nigam et al. (2011)⁹ had 31.69%.

Siddiqui M,¹⁰ Siddiqui K,¹¹ Baloch TA,¹³ Aftab ML,¹⁴ and Aslam MN¹⁵ have also found the disease to be commonest in the middle age group (30 – 59 years). Navneet Kaur et al,¹⁶ found maximum (71.3%) cases in the 35 – 54 years age group while Ramchandra Kamath¹² found maximum cases between 50 – 54 years. Balasubramaniam SM¹⁷ found the disease common in 39 – 59 years age group.

In the present study the most common histopathological type found was infiltrating ductal carcinoma. The same histopathological type has also been found commonest by others including Aftab ML,¹⁴ Siddiqui M,¹⁰ Baloch TA,¹³ Batool M,¹⁸ Aslam MN,¹⁵ Qureshi S,¹⁹ and Klonoff-Cohen.²⁰

Majority of the patients were from a rural background which was contradictory to the previous reports from India as well as United States, which show a higher incidence in urban population compared to the rural population.^{21,22} The difference is possibly due to the fact that women in rural areas face

substantial barriers in receiving preventive health care services and poor health awareness.²²

Despite an increasing trend in breast cancer patients, the incidence of breast cancer is lower and the patients are about one decade younger in developing countries than their counterparts in developed nations, yet the cause-specific mortality is significantly higher in developing Asian countries compared with the developed countries in Asia. This is due to

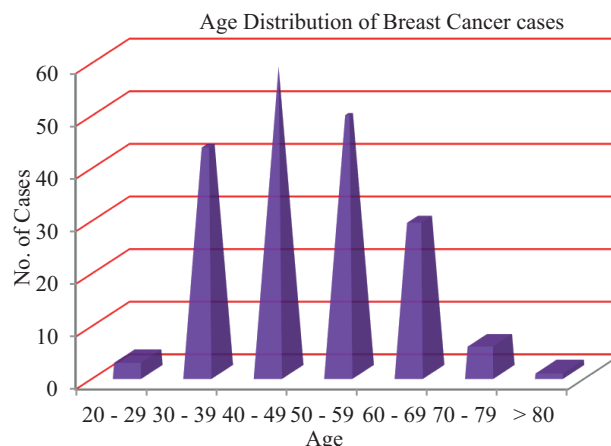


Figure-1: Age distribution of breast cancer cases

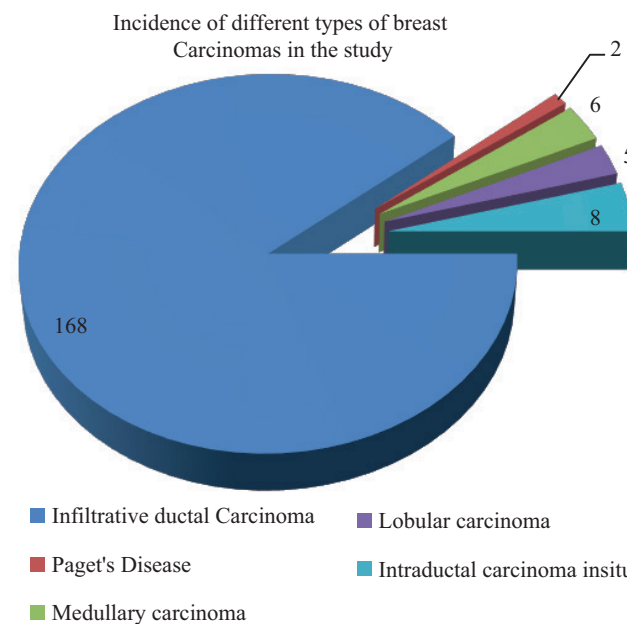


Figure-2: Incidence of different types of breast carcinomas in the study

Total Study Group (N=428)		
Type of case	No.	Percentage
Benign	239	55.84
Fibroadenoma	176	41.06
Phylloid Tumor	29	6.76
Fibrocystic disease	9	2.10
Duct Ectasia	3	0.69
Duct Papilloma	2	0.46
Breast Abscess	19	4.42
Chronic Abscess/Antibioma	1	0.23
Malignant	189	44.16
Breast Carcinoma	189	44.16

Table-1: Distribution of various lesions in the breast

Type	Sub type	Cases	%	
Lobular	In situ	0	0	
	Invasive	5	2.65	
Ductal	In situ	8	4.23	
	Infiltrating	Non-specific	168	88.89
		Specific		
		Medullary	6	3.17
		Mucinous	0	0
		Tubular	0	0
		Papillary	0	0
		Inflammatory	0	0
Others	Paget's disease of nipple	2	1.06	
	Mixed lobular and ductal	0	0	

Table-2: Distribution of cases of different types of breast carcinoma

the inadequacies of health care infrastructure and standards, sociocultural barriers, economic realities, illiteracy, and the differences in the clinical and pathological attributes of this disease in Asian women compared with the rest of the world together.²³

CONCLUSION

India is experiencing an unprecedented rise in the number of breast cancer and is having a lower mean age at presentation compared to what has been reported in the advanced countries of the world. In order to reduce the burden of the disease multi-sectorial approach and evidence based strategies aiming at early detection and effective management of the disease should be implemented. Public health programs that ensure access to appropriate, affordable diagnostic tests and treatment must be introduced.

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