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Case Series

Male breast carcinoma: study from a tertiary care centre in North India

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ABSTRACT

Male breast cancer is a rare malignancy. In recent years a rise in the number of male breast cancer cases has been seen. Due to rarity of the disease the reporting of such cases is important to support the present status of this aggressive malignancy. Fine needle aspiration method for breast FNA is an invasive procedure but can provide a diagnosis without causing much morbidity to the patient. Hence, objective of the present work was to report and study the clinico-pathological behaviour of male breast cancer at a tertiary care centre in North India using fine needle aspiration-based diagnosis. Present study includes cytologically diagnosed male breast carcinoma cases over a period of 4 years. Eleven cases of male breast cancer were identified. Median age of presentation was 57years. All the eleven patients presented with main complaint of swelling in breast (100%), nine (81.8%) patients presenting in left breast and two (18.2%) in right breast. Four cases presented with nipple retraction. Also, axillary lymphadenopathy was evident in four (34.4%) patients. Male breast cancer an aggressive disease having distinct clinical presentation, can be cytologically diagnosed easily as other benign conditions are rare in male breast.

Keywords: Breast carcinoma, Fine needle aspiration, Axillary lymphadenopathy, Gyneacomastia

INTRODUCTION

Male breast cancer is a rare malignancy with an estimated incidence rate of 0.5–1 % of all breast cancer cases.[1,2] Usual presentation is elderly male in 6th or 7th decades of their life. It is a progressive disease with a very poor prognosis as compared to the breast cancer in females. As not much data was available due to the rarity of this disease in the past so the prevalence of the disease could not be estimated but recently due to many reported cases from many centres from India show that the incidence is slowly rising.[3,4] The epidemiological data regarding male breast carcinoma is little as compared to female counterpart.

CASE SERIES

Present study reports cytologically diagnosed cases of male breast carcinoma received at our institute over a period of 4 years (From January 2017 to December 2020), conducted in Department of pathology, Pt B D Sharma, UHSR, Rohtak, Haryana. Patients presented to Surgical OPD with history of swelling breast, nipple discharge, pain or axillary lymphadenopathy and referred to pathology department for fine needle aspiration of the lesion. Fine needle aspiration using 23G needle was performed under all aseptic precautions. The smears were prepared and stained with Leishman stain and examined microscopically for cytomorphological features. It was conducted in compliance with ethical standards.

Eleven Patients were identified with carcinoma breast over a period of four years. Median age was 57 years (range 41-76 years). All the eleven patients presented with main complaint of swelling in breast (100%), nine (81.8%) patients presenting in left breast and two (18.2%) in right breast. Duration of symptoms was variable (varying from

one month to 8 years). None of the patients presented with the similar family history, but one patient had history of trauma and other had history of fever with lump and was on antibiotics. On examination a lump was identified in breast, left side being more common (81.8%) with nipple retraction in four (34.4%) patients out of which two had bloody nipple discharge. Also, axillary lymphadenopathy was evident in four (34.4%) patients. Details of the cases are mentioned below (Table 1).

Table 1: Patient details. Ax-Axillary, LAP- Lymphadenopathy.

Age (years)	On examination	Laterality	Duration	Nipple retraction/Discharge	LAP	Site of tumor	USG	Tumor Size (cms)	Diagnosis
66	Lump breast	Left	2.5m	+	Ax	Retroareolar	BIRADS IV B	1.7x1.6	Ca Breast
65	Lump breast	Left	4m	-	Ax	Retroareolar	Hypoechoic lesion	4.6x3.2	Ca Breast
41	Lump	Left	1m	-	-	Retroareolar	BIRAD IV	1.0x1.0	Ca Breast
72	Lump breast	Left	4m	-	-	Retroareolar	?Malignant lesion	1.0x1.0	Ca breast
57	Lump breast	Left	3m	+	-	Retroareolar	Hypoechoic lesion	2.0x1.4	Ca breast
43	Lump breast	Left	8y	-	Ax	Retroareolar	BIRADS V	2.2x1.0	Cabreast
50	Lump	Right	2y	+	-	9 O'Clock	Hypoechoic lesion	1.0x0.8	Cabreast
57	Lump	Left	4m	-	-	3-4 O'Clock	BIRADSIV	2.4x1.7	Cabreast
55	Lump	Right	3m	+	-	Retroareolar	Hypoechoic lesion	2.8x0.3	Ca breast
76	Lump	Left	3m	-	Ax	10 O'Clock	Hypoechoic lesion	1.6x0.9	Ca breast
45	Lump	Left	4y	-	-	Retroareolar	Hypoechoic lesion	2.0x1.5	Ca breast

m: month, y: years

Fine needle aspiration was performed using 23G needle from all the eleven cases which yielded blood mixed aspirates.

Similar cytological findings were observed which showed atypical epithelial cells arranged in groups, loose clusters and singly scattered revealing moderate pleomorphism, low to high N/C ratio, irregular nuclear contour, reticulo-granular chromatin, inconspicuous to prominent nucleoli and scant to moderate amount of basophilic cytoplasm against a haemorrhagic background. (Figure 1, 2). Cytological features were suggestive of carcinoma breast.

DISCUSSION

Breast cancer in males is mostly seen in elderly population, whereas women present at a younger age.[5] The data from studies done in India have shown that disease is usually seen in younger age group as also seen from data of west.[5-8] Median age was 62 years (range 32-91 years) in a Moroccan study.[9,10] Similarly in our study the median age was 57 years (range 41-76 years). Poor prognosis, is seen especially in the younger age group, because most breast enlargements in young men are ignored as gynecomastia.[11,12] This potential misdiagnosis can result in an unnecessary delay in treatment.

One of the study performed by Sani et al indicated that skin ulceration and hemorrhagic budding type was the most common clinical presentation in 14 cases (63.6%) out of 22 cases studied, history of retro-areolar nodule with tumour in the left breast in 15 cases (68.2%) and in the right breast in 7 cases (31.8%).[13] Ten cases showed right sided lesion and 8 cases with left sided presentation were

found in yet another study showing right sided predominance.[10] As far as laterality is concerned there is variation in the studies showing involvement of right or left side of breast. Our study showed predominance of left side involvement. Retroareolar mass was the most common clinical presentation in one of the largest study performed in 127 cases.[9] Similar findings were observed in our study indicated retro areolar mass in 8 cases (72.7%) out of 11 cases.

Studies showing the presence of family history have also been noted. Positive family history of breast cancer has been associated with increased risk of male breast carcinoma which is similar to the pattern observed in female breast cancer.14Positive family history was noted only in four patients out of 127 cases in one of the largest studies carried out on male breast cancer.[9] Various predisposing factors have been identified as family history (in the first degree relative), hormones (high oestrogen / prolactin levels), radiation exposure, cirrhosis of liver and genetic syndrome like Klinefelter's Disease.[15] However, we did not find positive family history in any of our patients.

Apart from the palpable lump, early presentation may include nipple involvement, with retraction, discharge and/or ulceration and /or bleeding, axillary lymphadenopathy and gyneacomastia.[16,17] Our patients presented with palpable lump in left breast (81.8%) and axillary lymphadenopathy (34.4%). Nipple involvement was seen in four (34.4%) patients. Various studies have shown nipple involvement as an early event in a substantial number of cases.[6,12,18] Studies have found that the presence of axillary lymph nodes at the time of presentation, despite short duration of the presentation the axillary lymphadenopathy was an important finding in both the cases.[10,13]

The median time for consultation found by Mauna et al in a study conducted using data collected retrospectively and prospectively of 127 patients in a Moroccan Institute over a period of 22 years was 28 months (range: 3-48 months).[9] Duration of the evolution of clinical signs found by study performed by Rachid et al varied from 1 to 7 years, which in our cases was variable (varied from 1 month to 8 years).[13]

CONCLUSION

Many cases of male breast carcinoma have been reported in the past, our cases are contribution to them as there is rarity of data regarding this rare malignancy. It can help in bringing alertness towards such cases which sometimes present with history mimicking inflammatory conditions and underlying disease goes unnoticed for some duration. Such cases are treated with antibiotics and thus wasting the precious time for diagnosing the disease. Though it is an aggressive disease but in elderly males a suspicion of breast cancer is important for early diagnosis. Fine needle aspiration is relatively less invasive method of reporting the lesions, without rendering much morbidity to the patient and hence giving a prior quick insight of the lesion before sending patient to much invasive and costlier procedure. Hence, decreasing the pain and financial burden on the patient. Breast cancer in males is seen at a relatively early age in India as per some studies conducted and the disease is aggressive in nature. Therefore, education, proper system for early detection, and adequate treatment are necessary for improving outcomes.

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