

Male Breast Carcinoma – A Rare Case Report In Our Institute

Dr.G.Karthick, Dr.R.Ravi , Dr.S.Meenaa, Dr.S.Natarajan

(Department Of General Surgery, Coimbatore Medical College/Tamilnadu Dr.M.G.R.Medical University, India)

(Department of General Surgery, Coimbatore Medical College/Tamilnadu Dr.M.G.R.Medical University, India)

(Department of General Surgery, Coimbatore Medical College/Tamilnadu Dr.M.G.R.Medical University, India)

(Department of General Surgery, Coimbatore Medical College/Tamilnadu Dr.M.G.R.Medical University, India)

Abstract :

Introduction: According to studies, one in 30 girls born in India may develop breast cancer during her lifetime. But did you know that one in 400 men also contract the disease? Male breast cancer is an uncommon disease and accounts for only about 1% of all breast cancer and 1% of all malignancies in men. Poor level of awareness often results in late presentation and delayed diagnosis in our environment. Generally, men with breast cancer have lower survival rates — probably because the disease spreads rapidly due to scanty tissue in the breast area.

Material And Method: Here I am presenting a case of infiltrating ductal carcinoma of breast of a 79 years old male patient who presented with ulcerative growth in right breast of 6 months duration. Patient was worked up with basic investigations, biopsies and metastatic survey and proceeded with neo adjuvant chemotherapy followed by modified radical mastectomy followed by post op chemotherapy. Patient is on regular follow up and doing well.

Conclusion: Male breast cancer is rare in our centre. Late presentation with advanced disease is a feature in the environment. The case is presented for the rarity and to discuss about poor awareness, regarding early diagnosis and proper management.

Keyword: Male breast cancer

I. Introduction

Breast cancer is much less common in men than in women. Male patients are older and show more advanced disease at the time of clinical presentation. Furthermore, invasive ductal carcinoma predominates in men >90% of the time, while ductal carcinoma in-situ (DCIS) and lobular carcinomas are less common or rare in comparison with women. Breast cancers that arise in men are more often hormone receptor positive (ER+, PR+) and less often overexpress HER-2. The most common presentation is a painless, firm, sub-areolar mass. Mammography is abnormal in 80-90% of cases and usually differentiates malignancy from gynecomastia. Biopsy is required to confirm the diagnosis and assay for hormone receptors ER, PR and HER-2, both of which influence the treatment selection. The TNM staging system and Nottingham scores are applied to male breast carcinomas as is the case with female breast cancer. Any male patient with a diagnosis of breast cancer should be referred for genetic counseling and BRCA testing because of the strong correlations seen in previous experimental studies.

Epidemiology

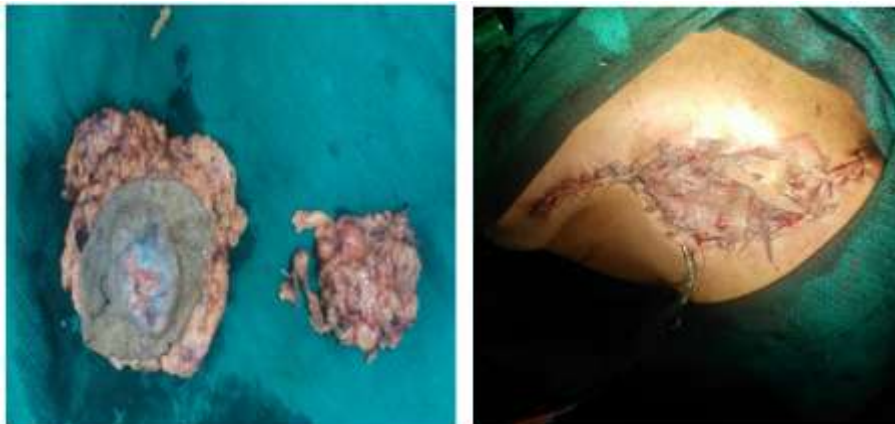
Male Breast Cancer (MBC) is rare in contrast to female breast cancer (FBC), which is the second leading cause of death in females (1). In the United States, approximately 2140 new cases of MBC are diagnosed annually, with approximately 450 deaths occurring as a result. This represents less than 0.5% of all cancer related deaths nationwide (2). The median age of onset of MBC is 65-67, approximately 5-10 years later than the median age seen in female breast cancer. Studies show that the incidence has increased 26% over the last 25 years (3).

Case Study

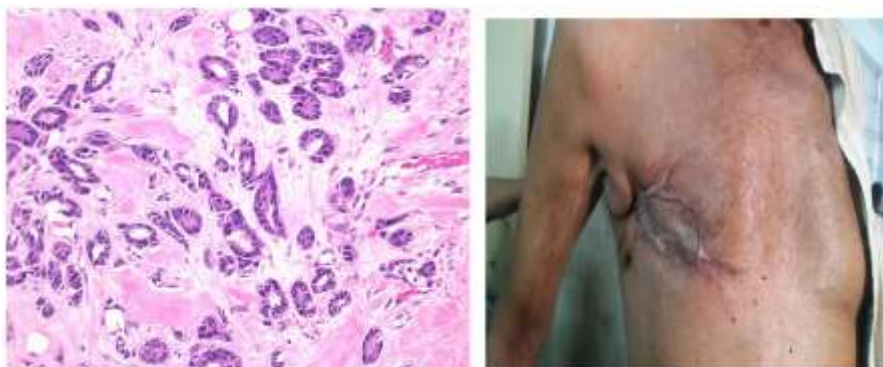
A 79 yrs old male patient presented to our out patient department with complaints of swelling right breast for 6 months and ulceration over the swelling.



On Examination a swelling was present in the central and lower outer quadrant of right breast of size 5x5cm and ulceration of size 3x3cm over the swelling. Hard in consistency with serous discharge. Biopsy from the lesion was proven to be invasive ductal carcinoma. All blood investigations and metastatic work up done and found to be normal. Proceeded with neoadjuvant chemotherapy 3 cycles and then right modified radical mastectomy along with SSG.



Histopathology report was invasive ductal carcinoma NOS Histologic Grade III. Cut margins were free all around. No evidence of lymphovascular invasion. 2 nodes showed tumor invasion.



Patient was given 3 cycles of Adjuvant Chemotherapy (CMF Regimen) and put on tamoxifen 10mg twice daily. Patient is on regular follow up for past 3 years and is doing well.

II. Discussion

Male Breast Cancer (MBC) is rare in contrast to female breast cancer (FBC), which is the second leading cause of death in females (1) In a study from India, eight out of 1,200 (0.7%) male cancer diagnoses in a pathology review represented breast cancer.⁽²⁾ Incidence of male breast cancer has been increasing which raises the probability of other family members developing the disease. The median age of onset of MBC is 65-

67, approximately 5-10 years later than the median age seen in female breast cancer. Studies show that the incidence has increased 26% over the last 25 years (3).

Risk Factors

Studies have shown several risk factors. These include obesity, low physical activity, gynecomastia, cryptorchidism, Klinefelter syndrome, exposure to radiation, chronic liver disease, schistosomiasis, and a family history of BRCA-1 or BRCA-2 mutations (1).

Differential Diagnosis

The differential diagnosis of a breast mass in a male patient includes gynecomastia, a breast abscess, tumor metastasis from a distant site, and other nonbreast tumors such as sarcomas and lipomas.

Diagnostic Staging And Evaluation

Breast cancer is staged according to the TNM staging system developed and maintained by the American Joint Committee on Cancer (AJCC) and the Union for International Cancer Control (IUCC). As in women, tumor size (T), regional lymph node involvement (N), and distant metastasis (M) are the most important factors influencing prognosis (4). In addition, breast cancer is given a histologic grade based on the Nottingham score in which the tumor is graded based on glandular formation, nuclear pleomorphism, and mitotic counts per high powered field. Together, the Nottingham score and the TNM stage are powerful indicators of prognosis (4).

Treatment

The traditional approach for localized breast cancer is modified radical mastectomy. The exception in men is that there tends to be extensive pectoralis chest wall involvement and so these patients may benefit from the classical radical mastectomy (5). Breast conservation therapies such as lumpectomy followed by breast irradiation is also an option.

Surgical assessment of the regional axillary lymph nodes is absolutely critical for primary therapy. Increasing amounts of data show in female studies that accurate surgical assessment of the lymph nodes is associated with a better prognosis. Additionally, data suggests that men who have node dissection omitted tend to have a worse prognosis (6).

There is limited data regarding the incidence of post mastectomy radiation therapy in men treated for breast cancer. In small experimental studies, post mastectomy radiation therapy showed to reduce local reoccurrence but the influence on survival is unknown. For women with node-positive breast cancer, a survival advantage with post mastectomy radiation has been shown. One review from John's Hopkins suggests that similar indications for postmastectomy radiation therapy should be applied to both women and men (7). As with female breast cancer, post- mastectomy radiation therapy is recommended for men with four or more positive lymph nodes (N2/N3 nodal disease) or locally advanced (T3/T4) primary tumors (7).

Because the majority of MBC tumors are hormone receptor positive, 5 years of adjuvant therapy with tamoxifen is recommended for most men (8). In addition, the use of Trastuzumab has shown effective for patients who are HER2-positive (9).

Prognosis

As in women, tumor size and the number of involved regional lymph nodes are the most important prognostic factors in MBC. In two reports involving 335 and 397 cases of MBC, 10 year survival rates were 77% and 84% for histologically negative nodes, 50% and 44% for one to three positive lymph nodes, and 24% and 14% for four or more positive nodes (10, 11).

MBC has been considered an aggressive disease with a considerably worse prognosis than in women. However the lower survival rates as compared with women can be attributed to older age and more advanced disease at the time of clinical presentation

III. Conclusion

Male breast cancer is rare in our centre. Late presentation with advanced disease is a feature in the environment. The case is presented for the rarity and to discuss about poor awareness, regarding early diagnosis and proper management.

References

- [1]. Anderson W, Althuis M, Brinton L. Is male breast cancer similar to or different than female breast cancer. *Breast Cancer Research Treatment* 2004; 83:77
- [2]. Kalyani, R.; Days, S.; Bindra Singh, M. S.; Kumar, H. (2010). "Cancer profile in Kolar: A ten years study". *Indian Journal of Cancer*. 47 (2): 160–165. doi:10.4103/0019-509X.63011. PMID 20448380{{ inconsistent citations }}
- [3]. Nahleh Z, Srikantiah R, Safa M, et al. Male breast cancer in the veterans affairs population: a comparative analysis. *Cancer* 2007; 109:1471
- [4]. American Joint Committee on Cancer Staging Manual, 7th Edition, Edge SB, Byrd DR, Compton CC. Springer, NY 2010.
- [5]. Golshan M, Rusby J, Dominquez F. Breast conservation for male breast carcinoma. *Breast* 2007; 16:653

- [6]. Cimmino VM, Degenim AC, Sabel MS, et al. Sentinel Lymph Node Biopsy in Male Breast Cancer Patients. *Journal of Surgical Oncology*. 2004 86:74
- [7]. Chakravarthy A, Kim CR. Post-mastectomy radiation therapy in male breast cancer. *Radiation Oncology* 2002. 65:99
- [8]. Giordano SH, Perkins GH, et al. Adjuvant systemic therapy for male breast cancer. *Cancer* 2005. 104: 2359
- [9]. Early Breast Cancer Trialists' Collaborative Group (EBCTCG). Relevance of Breast Cancer hormone receptors and other factors to the efficacy of adjuvant tamoxifen and trastuzumab. *Lancet* 2011; 378:771
- [10]. Cutuli B, Lacroze M, Dilhuydy JM, et al. Male Breast Cancer: results of treatments and prognostic factors in 397 cases. *European Journal of Cancer* 1995; 31A:1860
- [11]. Williams W, Powers M, Wagman L. Cancer of male breast; a report of 335 cases. *Cancer* 1993; 71: 154