

Radial Bone and Inguinal Lymph Node Metastasis in a Male Breast Cancer

DR BASAVARAJ B T

Abstract:

Introduction: It is well known fact that carcinoma breast in males presents in advanced stage at the time of diagnosis because of lack of awareness and knowledge. breast cancer in males accounts for less than 1% of all cancers in men. Male breast cancer mostly metastasise to bones, lungs, liver and brain.

Case Report: a 62 year old male presented with ulcerated lesion over right groin for 15 days and severe bony pain in left forearm. On detailed clinical examination and investigation it was found out that patient was suffering from carcinoma of left breast (trucut biopsy suggestive of infiltrating ductal carcinoma) with inguinal lymph node mets with fungation and radial bone mets on left side. There was no evidence of other systemic or visceral mets. Patient was treated with 6 cycles of chemotherapy TAC (PACLITAXEL ADRIAMYCIN AND CISPLATIN) and radiotherapy for left radial bone mets. patients hormonal receptor study showed ER + PR+ and CerB₂-ve. Hence was started on tamoxifen therapy.

Conclusion: Breast cancer in males is a rare disease accounting for less than 1% of cancers in men. This presentation of MBC with radial bone mets and inguinal lymph node mets is one of rarest presentation. MBC mostly metastasises to vertebrae and lower limb long bones. The poor prognosis of breast carcinoma in men has been attributed variously to late diagnosis, inappropriate staging, later stages of the disease at presentation, worse prognostic factors, anatomic factors and older at diagnosis with high comorbidities.

Date of Submission: 02-07-2019

Date of acceptance: 17-07-2019

I. Introduction

Everyone is born with small amount of breast tissue which comprises of two parts, ducts and glands. Breast cancer in males accounts for less than 1% of all cancers in men¹. It is well known fact that carcinoma breast in males presents awareness. male breast cancer mostly metastasise to bones, lungs, liver and brain. The average age of diagnosis of breast cancer in men is between 60 and 70 years, which is about 10 years later than that in women². Etiology of MBC is associated with hormonal imbalance with excessive estrogen stimulation which occurs in orchitis, orchidectomy, undescended testis, testicular injury and klinefelters syndrome which is associated with 50 fold elevated risk. Cirrhosis of liver and severe obesity also produces hyperestrogenic state.

About 15-20% of MBC have family history of disease BRCA-1 mutation carriers have 1.2% risk developing breast cancer, male BRCA-2 carriers have a 6.3% lifetime absolute risk³⁻⁵.

One of the common symptoms for male breast cancer is presence of lump of hard consistency, which goes unnoticed in males, most of the times due to its similarity to a normal breast tissue which is located directly on hard bony rib cage. This case is one of the rarest presentation of MBC with fungating inguinal lymph node mass and radial bone mets.

II. Presentation Of Case

A 62 year male presented to surgery department with complaints of fungating groin mass and severe bony pain in left forearm. After detailed clinical examination it was found that patient has left breast lump of 6×5cm centrally located hard in consistency with fixity to chest wall with fixed axillary lymphadenopathy. Patients right groin examination revealed, a fungating mass of 4×3cm with slough over it, and foul smelling discharge. on examination of left forearm it was found that there was bony swelling in distal 1/3rd of radial bone with severe tenderness. A trucut BIOPSY was performed of left breast lump and fungating right groin mass which revealed infiltrating ductal carcinoma and mets from adenocarcinoma respectively. X-ray of left forearm showed presence of osteoclastic radial bone mets. Contrast enhanced computed tomography of thorax and abdomen was performed which showed heterogenous enhancing mass in left breast parenchyma 5.5×4×4.6cm rounded lesion with spiculated margins. In thorax, posterior segment of left upper lobe showed nodular lesion suggestive of lung mets.

A lytic lesion was noted in left radial head and nodal mass measuring 5×4×4 cm in right groin. There was no family history of breast cancer. The patient was staged as T_{4a}N₂M₁. Hormonal study of left breast lump showed ER positivity, PR positivity and CerB₂ negative status.

In view of advanced disease, patient received chemotherapy based on TAC (paclitaxel, cisplatin and Adriamycin) and radiotherapy to left forearm. Patient then was started on hormonal therapy in form of tamoxifen and receiving palliative care of pain relief with morphine.

III. Discussion

Male breast cancers comprises of 4% of total breast cancers. Men can develop breast cancer at any age, but mostly detected in older age. Women were diagnosed at a younger median age (61.7 years) than men (69.6 years). Male patients had a poorer 5 year relative survival ratio than women⁶. Age specific incidence patterns showed that the biology of male breast cancer resembled that of late onset female breast cancer⁷. The poor prognosis of breast carcinoma in men has been attributed variously to late diagnosis, inappropriate staging, later stages of the disease at presentation, worse prognostic factors, anatomic factors and older age at diagnoses with higher comorbidities⁸. Ninety percent of MBCs are invasive, of these, 80% are of non specific type, 5% are papillary and 1% are lobular⁹. Lobular cancers are rare because of the lack of terminal lobular duct units in male mammary tissue². This presentation of MBC with radial bone mets and inguinal lymph node mets is one of rarest presentation. MBC mostly metastasizes to vertebrae and lower limb long bones. Men with a family history of breast cancer in a female relative have 2.5 times the odds of developing breast cancer⁷. As in women, there is slight predominance of left sided versus right sided disease. In general, liver damage and severe obesity causes hyperestrogenic state which is a causal factor in gynecomastia. However incidence of gynecomastia in MBC patients is no higher than in general male population, gynecomastia therefore does not in itself seem to represent a risk factor for MBC¹⁰. A higher frequency of breast cancer is reported in man who worked in hot environment, such as blast furnaces and steel works, possibly because of long lasting exposure to high ambient temperatures can lead to testicular failure¹¹. Given that the vast majority of men have estrogen receptor positive tumors, hormonal therapy is often the first approach, depending on age, performance status and comorbidities. Tamoxifen has established efficacy in metastatic male breast cancer, with an approximate 50% response rate and is considered the preferred first line approach⁷. For male patients hormone refractory disease or rapidly progressing visceral metastases, chemotherapy can provide significant palliation⁷.

IV. Conclusion

We report a rare case of radial bone mets and inguinal lymph node mets in an elderly male breast cancer patient. Overall prognosis is the same for men and women. Axillary lymph node status is the most important prognostic factor. Patients with estrogen receptor and progesterone receptor positive tumors had significantly improved survival compared to those with receptor negative tumors. For males and females, the disease is fundamentally similar, however male breast cancer often remains unnoticed in its initial stage.

References

- [1]. Weir HK, Thun MJ, Hankey BF, et al. Annual report to the nation on the status of cancer, 1975-2000, featuring the uses of surveillance data for cancer prevention and control. *J Natl cancer trust*. 2003;95(17):1276-1299.
- [2]. Lucy R Khan, J. Michael Dixon. *The American journal of hematology/oncology*. vol. 12, no. 6.
- [3]. Friedman LS, Gayther SA, Kurosaki T, et al. Mutation analysis of BRCA-1 and BRCA-2 in a male breast cancer population. *Am J Hum Genet* 1997;60(2):313-319.
- [4]. Easton DF, Steele L, Fields P, et al. Cancer risks in two large breast cancer families linked to BRCA-2 on chromosome 13q12-13. *Am J Hum Genet* 1997;61:120-128.
- [5]. Tai JC, Domcheck S, Parmigiani G, Chen S. Breast cancer risk among male BRCA-1 and BRCA-2 mutation carriers. *J Natl cancer trust*. 2007;99:1811-1814.
- [6]. Miao H, Verkoijen HM, Chia KS, et al. Incidence and outcome of male breast cancer: an international population based study. *J Clin Oncol* 2011;29(33):4381-6.
- [7]. Joarder R, Choudhary K, Choudhary KB, Sen A, Choudhary BB, Mandal S. Scalp metastasis in a male breast cancer: A case report. *International Journal of Case Reports and Images*. 2013;5(1):23-27.
- [8]. Feng Ai-Ping, Qian Y, Wu Y. *International Journal of Dermatology* 2007;46:(738-739).
- [9]. Stalsberg H, Thomas DB, Rosenblatt KA, et al. Histology types and hormonal receptors in men; a population based study in 282 United States men. *Cancer Causes Control*. 1993;4(2):143-151.
- [10]. Joli R, Weiss I, Kirsten B, Moysich I and Helen Swede. *Epidemiology of male breast cancer*. Volume 14, issue 1, pp. 20-26.
- [11]. Dada R, Gupta N, Kucheria K. Deterioration sperm morphology in men exposed to high temperature. *J Anat. Soc. India* 50(2) 107-111 (2001).

DR BASAVARAJ B T. "Radial Bone and Inguinal Lymph Node Metastasis in a Male Breast Cancer." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 7, 2019, pp 14-15.