

## Cytological Diagnosis of Male breast carcinoma: A case report of Neglected Entity

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### **ABSTRACT**

**Introduction:** - Breast cancer in males is a rare disease with an estimated frequency of less than 1%. Compared to its female counterpart, it presents late, lacks proven diagnostic modalities and treatment strategies and offers a much important prognosis.

**Case History:** A 71-year-old male presented with a 6 months history of lump right breast associated with pain and nipple excoriation. Fine needle aspiration was done and a diagnosis of primary breast carcinoma was made. **Conclusion:** The disease rarity is a major factor for diverging the clinician from the definite diagnosis. Empowering this factor are the factors like late presentation of the disease and no defined treatment guidelines rendering it in the bad prognostic group of primary carcinomas

**Keywords:** grave prognosis, Primary male breast cancer

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### **INTRODUCTION**

Male breast cancer is an extremely rare entity accounting for 0.2%-1.5% of all malignant tumors in males and 1% of all breast cancers.<sup>1</sup> As in women, risk factors in males include increasing age, positive family history in a female, hyperestrogenic states, obesity, radiation exposure, exposure to carcinogens like polycyclic aromatic

hydrocarbons, BRCA1 and BRCA2 mutations.

Some other conditions associated with an increased risk include Cowden syndrome, Klinefelter's syndrome, liver disease such as cirrhosis and hyperprolactinaemia due to pituitary adenomas.<sup>2</sup> Testicular dysfunction on account of trauma, orchiectomy, orchitis, congenital inguinal hernia,

undescended testis and infertility have also been associated with an increased risk of male breast cancer.

The rarity of the disease has resulted in the paucity of prospective randomised trials as a consequence of which, most of the diagnostic and treatment modalities are based on those used for the stage-matched female breast cancer hence lacking subtle management protocols.

Herein, we present a case of carcinoma breast in an elderly male diagnosed on fine needle aspiration encountered in our out-patient clinic.

### **CASE REPORT**

A 71 year old male presented with a history of lump in right breast associated with pain and excoriation of nipple for 6 months. There was a positive history of significant weight loss and loss of appetite. However, there was no history of any nipple discharge, any previous breast pathology, sterility, obesity or testicular trauma. Family history was insignificant.

On general physical examination, the patient was anorexic. All the vitals were within normal limits. Local examination revealed excoriation over right nipple-areola

complex. There was induration in the skin surrounding it and few hyperpigmented macules were present extending from the nipple-areola region to the right axilla. On palpation, a hard mobile lump measuring 1.2x1 cm was palpable retroareolarly which was tender to touch. No axillary lymph nodes were palpable bilaterally. Left side breast region was normal. All the routine investigations were normal. Chest X-ray revealed normal lung parenchyma, soft tissue and bony structures. USG abdomen and pelvis were normal. CECT head did not reveal any pathology. Bilateral testis was unremarkable.

Fine needle aspiration using 23G needle was done which yielded few drops of blood mixed aspirate. Smears were prepared and stained with May-Grünwald-Giemsa and Papanicolaou stains. Using light microscopy, highly cellular smears showing single population of epithelial cells arranged in poorly cohesive sheets and scattered singly with marked atypia and having high N:C ratio, granular chromatin and prominent nucleoli were identified suggesting the diagnosis of carcinoma breast.

## **DISCUSSION**

Breast cancer in males has been a focus of limited research and continues to be a challenge to the investigators owing to its rarity, less chances of suspicion, delayed presentation and short survival period. Although usually delayed, the presentation is seen as a typically palpable painless subareolar mass.<sup>1</sup> In contrast to women, it has unimodal age distribution in men with a mean age of 65.4 at the time of diagnosis hence offering a lower 5- or 10-year survival rate as compared to women.<sup>3</sup>

In men, the predominant histological subtype of invasive breast carcinoma is infiltrating ductal carcinoma accounting for more than 80% of all the tumors, papillary carcinoma making up to 5% and lobular carcinoma less than 1%, as lobule formation in males requires estrogenic stimulation.<sup>4,5</sup> As compared to females, male breast cancer shows high positivity for ER and PR, thus, becoming an optimal candidate for endocrine therapy.<sup>2</sup>

Guidelines for the early detection of male breast cancer are based on those for females and include 6-monthly clinical breast examinations,

monthly breast self-examinations, baseline mammography, annual follow-up mammography and genetic testing whenever indicated. Similarly, treatment strategies are based on those for female breast cancer.<sup>6</sup>

Modified radical mastectomy alongwith axillary lymph node dissection or sentinel node biopsy is the mainstay of treatment for early disease.<sup>6</sup> Role of adjuvant chemo and radiotherapy is still not proven, although many studies have demonstrated a decreased risk of local recurrence and a high disease free survival following adjuvant therapy. For advanced staged or metastatic breast cancer, endocrine therapy has proven benefits. There are no clinical trials but studies have shown an increased disease free survival after the use of tamoxifen.<sup>7</sup>

## **CONCLUSION**

Though rare, male breast cancer has a grave prognosis due to its late presentation and lack of proper management strategy. A pre-menopausal woman cured of breast cancer is likely to survive more as compared to a man diagnosed and treated at 65. The doomed prognosis demands additional trials and studies

for the early diagnosis and management, however, disease rarity continues to pose the biggest problem in conducting prospective clinical trials hence affecting the development of effective diagnostic and management strategies.

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