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Full Length Research Article

CARCINOMA OF THE MALE BREAST – A RARE ENTITY

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ABSTRACT

Carcinoma in the male breast is not very common, the incidence being less than 1% of the incidence in women. We present the case of a 56 year male patient, who came with the complaints of swelling in the left nipple with an adjacent sinus tract, discharging blood stained pus. The histopathological diagnosis of a low grade, Invasive Ductal Carcinoma was given with involvement of the nipple. ER, PR and Her 2 neu were positive.

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INTRODUCTION

Breast carcinoma in men is very rare, accounting for only 1% of all malignant breast neoplasm cases (Fentiman *et al*., 2006). The lesions present at an older age and has a unimodal age frequency with a peak incidence of 71years. Among the histologic types, Invasive Ductal Carcinoma is the most prevalent breast cancer in males with an incidence varying from 65-95% (Giordana *et al*., 2004).

Case details

A 56 yr old male presented to the outpatient department of our hospital with complaints of a swelling in the left chest wall for the past one year. The swelling was insidious in onset and non progressive in nature. Fine Needle Aspiration Cytology (FNAC) was suggestive of a granulomatous inflammation. Patient was on medication for tuberculosis, but there was no resolution of symptoms. Later on he developed blood stained discharge and pus from the swelling. There was no previous relevant medical or family history. Past history did not reveal any history of drug intake, smoking or alcohol. On examination there was a swelling on the left side of the chest wall in the region of the nipple with a sinus tract measuring 5x4x2cms, associated with pus and blood stained discharge. The swelling was fixed to the underlying structures and was firm in consistency. Axillary nodes were also palpable. A wide local excision of the left mammary sinus was done; considering the lesion to be a tuberculous lesion. The specimen was sent to pathology for histopathological examination. The specimen was adequately sampled, as per standard guidelines. There was a nodular ulcerated area of 1x1 cm size, noted in the region of nipple and areola on the left side. The cut surface showed a solid grey white irregular firm mass measuring 2.5 x2cm, the mass was 0.5cm from the deep resected margin. On histopathological examination, the diagnosis was a low grade Invasive Ductal Carcinoma (Fig 1) and the tumor was also seen to be infiltrating the nerve (Fig 2). Nipple and areola showed ulceration with involvement by the tumor (Fig 3) Nottingham's score was 4, with an overall grade 1 malignancy. The tumor was subjected to Immunohistochemical study for ER, PR and Her 2neu status. Both Estrogen Receptor (ER) and Progesterone Receptor (PR) were positive and Her2 neu was also positive, showing a 3+ positivity (complete membrane staining in more than 30% of the tumor cells) (Fig 4). The patient was discharged and

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transferred to the oncology unit, for further management. He was given three cycles of chemotherapy and advised to come for follow up.

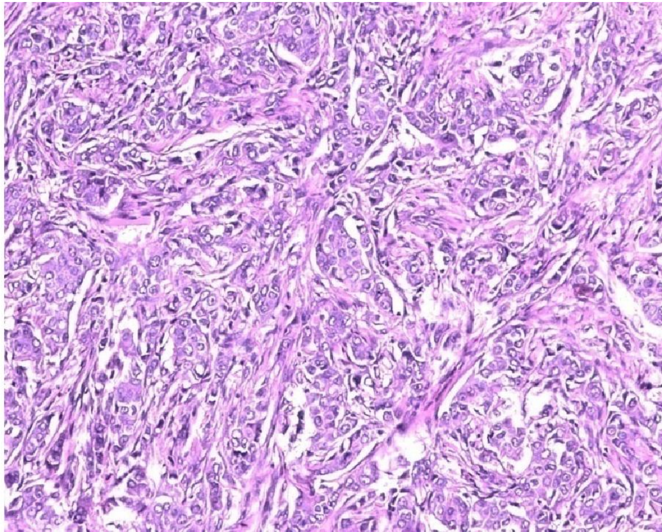


Fig. 1. Infiltrating Ductal Carcinoma-Tumor cells arranged in glandular pattern (H & Ex100)

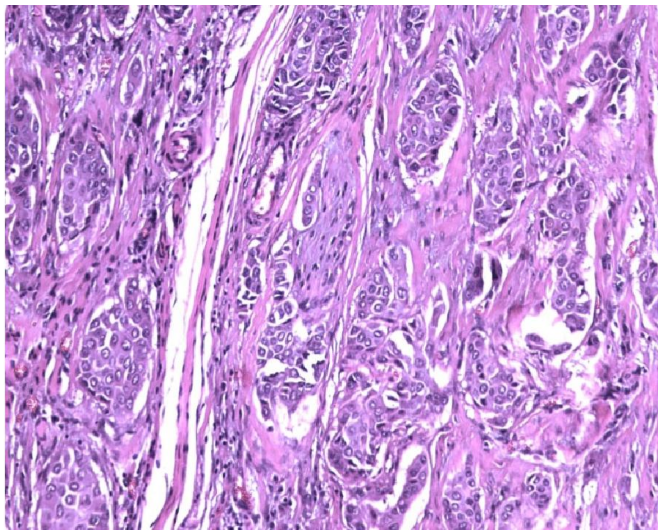


Fig. 2. 100x Perineural invasion of tumor cells (H & Ex100)

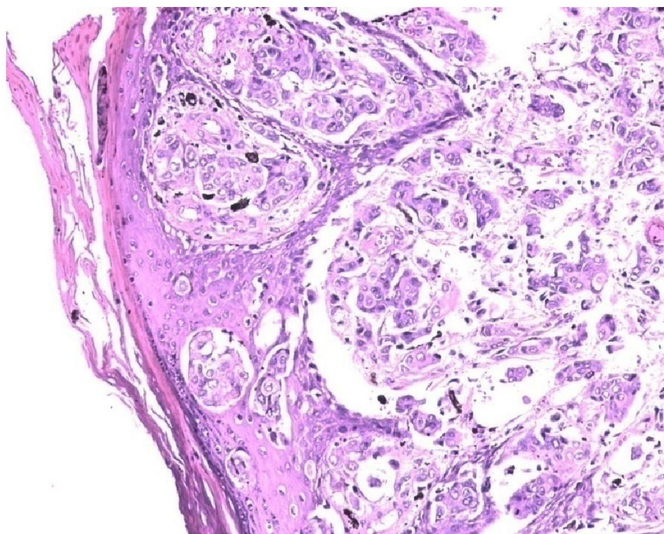
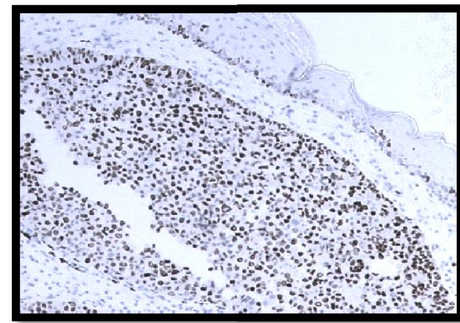
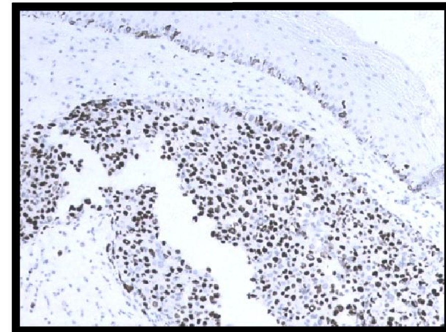


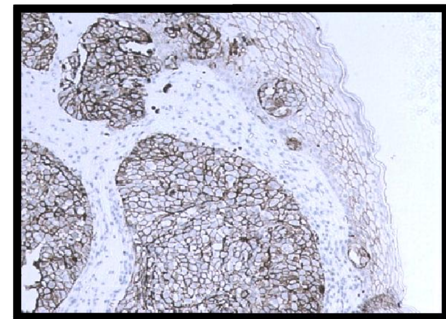
Fig. 3.100x Tumor cells infiltrating nipple & areola (H & Ex100)



ER : 100X Positive



PR :100X Positive



Her2 : 100x 3+ positivity

Fig. 4. Immunohistochemistry ER, PR, Her2 : Positive (IHCx100)

DISCUSSION

Male breast cancer is an uncommon and rare disease with an incidence as low as 1 case for each 1,00,000 men. This group accounts for only about 1% of all malignant breast neoplasm cases. Male breast cancer has a unimodal age frequency distribution with peak at 71 yr. Our patient was also 56 years old , however cases have also been reported in younger age group also (Madeira *et al*., 2011). The etiology of male breast cancer is unclear, but studies across the world attribute hormonal levels, testicular abnormalities and few syndromes like Klinefelter's Syndrome to be responsible for the causation of the cancer. Mutation in BRCA 1 and BRCA2, the breast susceptibility genes are also responsible for many cases of heritable breast cancer cases across the globe. Majority of the patients present with painless, subareolar lump, nipple retraction and bleeding from the nipple (Giordana, 2005). Our patient also presented with a lump, associated with a bloody discharge from the adjacent area. The tumor mostly affect the left side as was the case in our patient too. Histologically, Invasive Ductal Carcinomas predominate in most of the studies (Donegan *et al*., 1998). But other histological variants

like medullary and papillary carcinomas have also been reported. Incidence of lobular carcinoma is again less, as compared to women. Male breasts have high rate of hormone receptor expression as compared to women. However Her2neu is less likely to be over expressed in cancer of male breast. Our patient also expressed ER, PR and Her2neu. The prognostic factors affecting male breast cancers has also been studied by many authors. The most important being advanced stage at presentation (Joshi *et al*., 1996). The other factors implicating poor prognosis is anatomic factors, like paucity of breast tissue, close tumor proximity to skin and nipple, facilitating dermal lymphatic spread, which may lead to early metastasis.

Conclusion

Male breast carcinoma is a rare entity and the identification of this entity at an early stage is very important for the correct management. Due to the poor prognostic factors associated with male breast carcinoma, early recognition and adequate treatment is a must.

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