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A CASE REPORT ON A MALE PATIENT WITH BREAST CARCINOMA

General Surgery

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ABSTRACT

Male breast cancer is a rare condition, accounting for approximately 1% of all breast cancer cases. Typically, men are diagnosed at an older age than women, with the average age of diagnosis around 67 years. Several risk factors have been identified, including genetic predispositions and hormonal imbalances. This study presents the case of a 58-year-old man diagnosed with invasive ductal carcinoma, despite having no significant risk factors. His case underscores the need for further research into the disease's underlying causes beyond currently recognized risk factors. While progress is being made in understanding male breast cancer, continued efforts are essential to explore risk factors, improve treatment approaches, and enhance survival outcomes. Additionally, this study examines the potential impact of breast cancer therapies on fertility, highlighting concerns about impaired reproductive health in male patients undergoing treatment.

KEYWORDS

Breast Cancer, Invasive Duct Carcinoma, Male, Risk Factors

INTRODUCTION

Male breast cancer is a rare form of cancer that develops in the breast tissue of men. Although it is commonly associated with women, it can also occur in men, most often between the ages of 60 and 70, but rarely under the age of 35. Several factors may increase the risk of developing male breast cancer, including a family history of breast cancer in first-degree relatives, prior radiation exposure to the chest, and conditions such as gynecomastia due to elevated levels of endogenous or exogenous estrogens. Other contributing factors include obesity, mutations in the BRCA2 gene, liver cirrhosis, chronic alcoholism, certain medications, Klinefelter's syndrome, testicular diseases such as mumps orchitis or orchidectomy, and a history of prostate cancer. In some cases, the cause may be idiopathic, meaning no clear risk factor is identified.

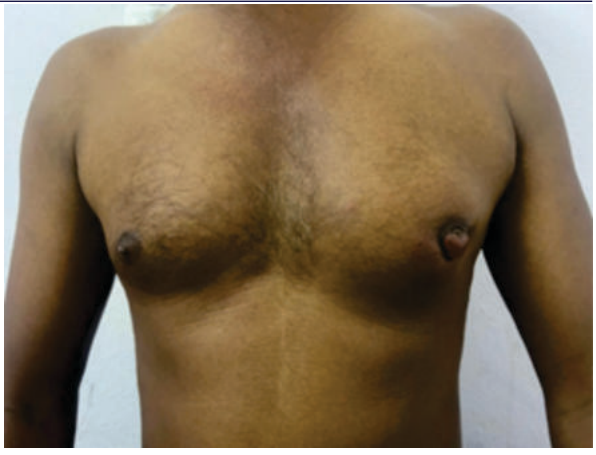
CASE REPORT

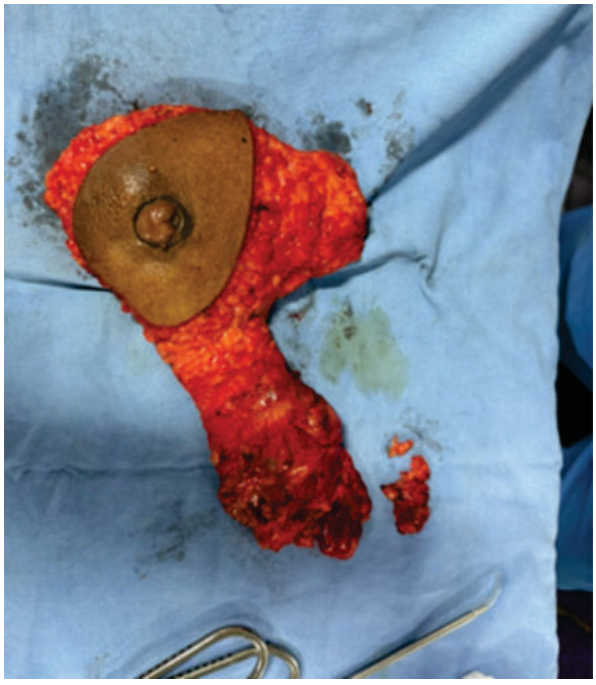
A 58-year-old Indian male presented with a progressively enlarging, non-tender 5 cm round mass in the lower outer quadrant of his left breast and distorted nipple areola complex . He has no significant past medical or family history and is not on any medications. He is married, has a normal sexual life, and has a son of age 17years. He denies alcohol consumption and has a smoking history of 5 pack-years. His body mass index (BMI) is 26.4 kg/m^2, classifying him as normal weight, and his testicular volume is normal.

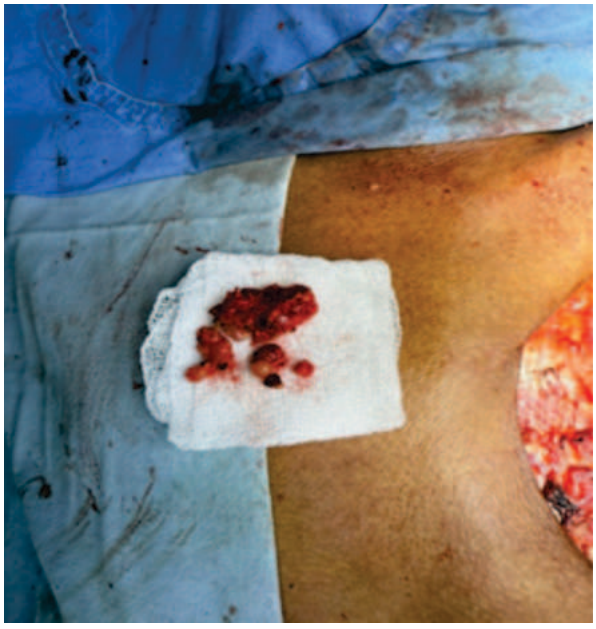
On ultrasonography, the irregular mass at left subareolar and lower quadrant was measured 5.3*3.3*4.7cm in diameter with calcific foci. The mass had a complex solid and cystic echo pattern with posterior enhancement. The margin of mass was not circumscribed, and a long axis of the mass was parallel to the skin. Ultrasonography also showed multiple well defined oval hypoechoic mass adjacent to the axillary vessels in left axilla largest measuring 2.2*3.8*3.7 cm . The irregular subareolar mass and lower quadrant was classified as Breast Imaging-Reporting and Data System category 5 and diagnosed as invasive ductal cell carcinoma with fine needle aspiration biopsy.

He underwent modified radical mastectomy for his breast cancer and the final pathologic diagnosis was a 5.5cm invasive ductal carcinoma with histologic grade 2 estrogen receptor (ER)-positive, progesterone receptor (PR)-positive, human epidermal growth factor receptor 2 (HER-2)-equivocal and Ki-67 labeling index of 80%. The axillary lymph node dissection showed 10 positive nodes among 27 lymph nodes retrieved. His final stage was Pt4bN2aMx.

He underwent adjuvant chemotherapy with 6 cycles of Adriamycin, and cyclophosphamide. And he also underwent adjuvant radiotherapy, hormonal therapy with daily tamoxifen 20 mg, . Up to now, at 1 year after surgery, there was no tumor recurrence.







DISCUSSION

Male breast cancer is a rare cancer that forms in the breast tissue of men. Though breast cancer is most thought of as a disease that affects women, it does occurs in men. Breast cancer normally grow and divide in response to female hormone such as estrogen. The more cells are divide, the more changes there are for mistakes to be made when they are copying their DNA. These DNA changes can eventually lead to cancer. Factors that unbalance the level of female and male hormones in the body can so, influence breast cancer. Men with inherited mutation in the BRCA1 & BRCA2 genes have a higher lifetime risk for breast cancer, and possibly some other cancer such as prostate & pancreatic cancer. All men to have been diagnosed with breast cancer should consider Genetic Testing because they can be at risk for other cancers, such as prostate and pancreatic cancer. Mutation in CHEK2, PTEN and PALB2 genes might also be considered for some breast cancer in men. Men commonly ER positive tumors- so adjuvant systemic chemotherapy, hormone, immune therapy is used. If ER,PR, HER2 receptor are negative, then it is called Triple Negative Breast Cancer wher hormone therapy is less effective. Breast cancer in men is frequently a disseminated systemic disease- so, endocrine therapy that is Tamoxifen 20 mg once daily is the treatment of choice. Tumour regression in men is double by Tamoxifen then in female. Generally poorer prognosis in male breast cancer than in female in any stage of disease. Overall 5 years survival rate for men with breast cancer is 84%. Individual survival rate depends on different factors, including stage of the disease when it is first diagnose. If the cancer is located only in the breast, the 5 years survival rate is 97%. Female breast cancer is 100 times more common than men.

CONCLUSION

Male breast cancer is a rare cancer that forms in the breast tissue of men. It is rare in male (0.5%); increased in incidence in male breast cancer with prostate cancer as in women hormonal influences are probably related to development of male breast cancer. A high incidence of both breast cancer and gynecomastia in Bantu men due to a failure of estrogen inactivation (metabolism) by a liver damaged by associated liver disease. Most breast carcinoma in stage I and II require simple mastectomy with axillary sampling or sentinel lymphnode biopsy (SLNB) for suspicious axillary lymphnode; breast conserving surgery is also, a good option in this stage; where, lump is <4 cm, low ratio of breast tissue Vs lump size and facility of postoperative radioatherapy is available. Postoperative chemotherapy, hormone therapy or/ and biological or targeted therapy are needed according to ER, PR, HER2 & VEGF receptor status.

Male breast cancer is though a rare encountered in daily practice of a general surgeon; proper history, systemic evaluation and multidisciplinary team approach is imperative.

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Ethical Approval: The study was approved by the Institutional Ethics Committee

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