Ulcerofungating Breast Carcinoma in males: A Rare Presentation of Invasive Ductal Carcinoma

Abstract

Breast cancer in men represents an uncommon malignancy that makes up fewer than 1% of all breast cancers and roughly 1% of cancers affecting males overall. The rarity of this condition, combined with limited awareness, frequently results in delayed diagnosis and consequently leads to more advanced disease when patients first seek treatment. This report describes a 75-year-old man who came to medical attention with a gradually growing mass in his right breast, accompanied by ulceration affecting the nipple and surrounding areolar area. Physical examination identified a firm, movable mass measuring 5×5 cm that involved the upper portions of the breast, along with a 2×2 cm ulcero-fungating growth covering the nipple-areolar region. Ultrasound imaging revealed a concerning lesion located behind the areola that was classified as BI-RADS V, with accompanying enlarged lymph nodes in the armpit area. Analysis of cells obtained through fine needle aspiration pointed to ductal adenocarcinoma of the breast. Laboratory testing of tissue markers revealed positive results for estrogen and progesterone receptors, uncertain HER2 expression levels, and an elevated Ki-67 proliferative marker. Breast cancer in men typically appears at advanced stages because patients often delay seeking care, making it crucial for healthcare providers to recognize this condition for prompt diagnosis and treatment. This case demonstrates the clinical features, diagnostic workup, and tissue characteristics of male breast cancer in an older patient.

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Introduction

Breast cancer in men represents a rare condition, occurring in roughly 1% of all breast cancer cases globally. Because this disease is so uncommon, it frequently goes unrecognized initially, leading to delayed diagnosis. As a result, male patients typically present with more advanced disease than their female counterparts[1]. Men between 60 and 70 years old experience the highest rates of this cancer, although it can develop at various ages[2].

Several factors increase the risk of developing breast cancer in men. These include advanced age, inherited genetic mutations (especially BRCA2), hormonal disruptions, excess weight, previous radiation exposure, Klinefelter syndrome, and long-term liver problems[3]. Invasive ductal carcinoma represents the predominant type, making up over 85-90% of male breast cancers. This occurs because men have underdeveloped lobular breast structures[4].

When symptoms appear, male breast cancer typically manifests as a painless lump beneath the areola. In more advanced cases, patients may experience nipple pulling inward, unusual discharge, or skin breakdown. The cancer may also spread to nearby lymph nodes in the armpit[5].

Since men have much less breast tissue than women, tumors quickly reach the nipple and surrounding area during early disease progression. This proximity often causes skin ulceration or invasion into nearby tissues[6].

Case Presentation

A 75-year-old male patient came to the surgical outpatient department reporting swelling in his right breast that had been present for three months.

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The patient first noticed a lump in his right breast three months prior, which had been slowly getting larger. He did not seek medical care initially because the swelling caused no pain. The mass kept growing and eventually developed changes in the nipple and surrounding area, including the formation of an ulcer.

The patient had no history of breast injury, nipple discharge, fever, weight loss, or similar swelling in other parts of his body. He also had no known family history of breast cancer or other cancers.

Physical examination of the right breast showed fullness in the upper outer section and an ulcerated, fungus-like growth over the nipple and areolar area measuring about 2 x 2 cm. A lump approximately 5 x 5 cm could be felt in the right breast. This lump extended across the upper outer section, upper inner section, and part of the nipple-areolar area. The mass felt hard, could be moved over the chest wall, and was not painful to touch. The left breast appeared normal during examination, and no enlarged lymph nodes could be felt in the armpit area at the time of presentation.

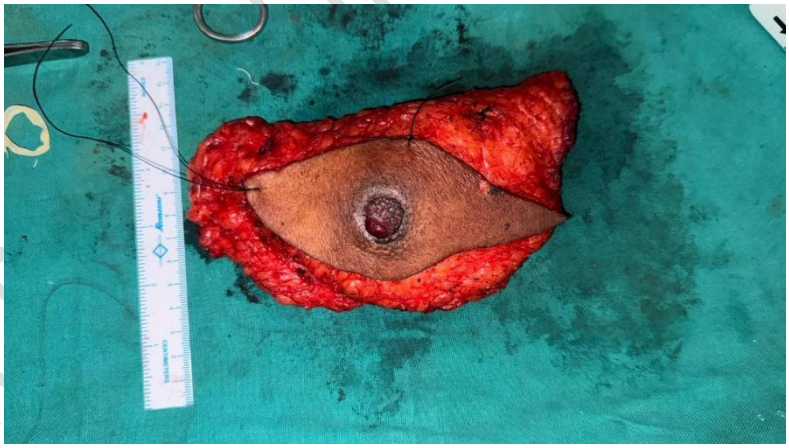




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CECT revealed lobulated soft tissue lesion in the right breast showing homogeneous enhancement on post-contrast study with invasion of nipple-areolar complex and mild skin thickening and ulceration at nipple areolar complex as described... suggestive of neoplastic etiology. CYTOLOGY findings were consistent with ductal adenocarcinoma of the right breast.





The patient had a right-sided radical mastectomy performed

Histopathology results showed a right breast lump consistent with invasive carcinoma of no special type (ductal) with skin invasion and ulceration, classified as Grade II. Other surgical margins were clear of tumor. Lymph node analysis revealed metastasis in 3 out of 23 nodes examined. Pathological staging according to AJCC 8th edition was pT4b N1a.

Immunohistochemistry testing showed positive estrogen receptor (ER), positive progesterone receptor (PR), and weak to moderate HER2/neu membranous staining. The Ki-67 proliferation index was approximately 70-75%, indicating high proliferative activity. Androgen receptor testing was also positive. Additional HER2 testing using FISH was recommended.

We present here a case involving ductal carcinoma in the right breast of a 75-year-old man. His condition appeared as an ulcerating, fungating growth affecting the nipple-areolar region, accompanied by a detectable breast mass.

Discussion

Breast cancer in men represents an uncommon form of cancer, making up less than 1% of all breast cancer cases globally. While rare, cases of male breast cancer have been rising slowly over recent decades, likely because of better awareness and advances in diagnostic methods.

Men typically receive this diagnosis around age 67, which tends to be later than when women are diagnosed with breast cancer. The predominant type found in men is invasive ductal carcinoma, which comprises almost 90% of male breast cancer cases.

Since men have very little glandular breast tissue and lack fully formed lobules, lobular carcinoma occurs extremely infrequently in male patients.

The typical initial symptom is a painless lump beneath the areola, often accompanied by nipple changes like retraction, ulceration, or discharge. In this particular case, the patient came in with a breast mass that had been growing larger over time, along with ulceration around the nipple and areola area, which indicates the disease had progressed significantly.

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The tumor's location behind the areola in this patient aligns with what we commonly see in male breast cancer, given how breast tissue is distributed in men.

Medical imaging serves a vital function in assessment. Doctors routinely use ultrasound and mammography to examine concerning areas. When a lesion receives a BI-RADS V classification, it signals an extremely high chance of cancer and requires a tissue sample for confirmation.

Fine needle aspiration cytology continues to be a useful method for evaluating breast lumps, offering quick confirmation of cancer cells.

Understanding hormone receptor status holds special significance in male breast cancer. Research indicates that up to 90% of male breast cancers test positive for estrogen receptors, a much higher rate than seen in women with breast cancer.

This frequent presence of hormone receptors makes hormone-blocking treatments a key part of the therapeutic approach.

In this situation, both estrogen and progesterone receptors tested positive, indicating the cancer would likely respond well to hormone treatments like tamoxifen.

HER2 status also matters clinically since it can determine whether targeted treatments are appropriate. For this patient, HER2 expression results were unclear, so additional FISH testing was suggested.

The Ki-67 proliferation index of 70-75% found in this patient shows the tumor was dividing rapidly, pointing to aggressive cancer behavior.

Treatment approaches for male breast cancer typically mirror those used for female patients. Modified radical mastectomy combined with lymph node evaluation remains the standard surgical option because men have limited breast tissue.

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Additional treatments may involve hormone therapy, chemotherapy, and radiation, based on the cancer's stage and receptor characteristics.

Finding the cancer early and starting treatment quickly are crucial for achieving better results in male breast cancer patients.

Conclusion

Breast cancer in men represents an uncommon yet significant medical condition that frequently goes undetected until advanced stages because of limited awareness and diagnostic delays. When older men develop breast masses, nipple abnormalities, or skin breakdown in the breast area, healthcare providers should quickly assess these symptoms for possible cancer. Diagnostic imaging, cell sampling studies, and specialized tissue testing are essential tools for confirming the diagnosis and determining appropriate treatment approaches. Better education of both medical professionals and the public could lead to earlier detection and better patient outcomes.

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