# **CASE REPORT**



# Management challenges of invasive breast carcinoma in a male patient who refused treatment: a case report



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# Abstract

Male breast cancer is extremely uncommon, accounting for less than 1% of all male cancers and about 0.1% of male cancer deaths. It tends to occur in an older age group (60–70 s) when compared to women (50–60 s). Male breast cancer does not usually present with large tumor size; normally, it presents with advanced stage due to less breast tissue compared to women. However, when it is left untreated for a long time, it can attain a big size. Studies have reported that some patients with breast cancer may refuse cancer treatment. Our report describes a case of breast cancer in a male patient from Tanzania who refused oncological care. A 74-year-old male came to our facility because of a left breast mass after more than 12 months. On examination, his vital signs were within normal limits. He had an ulcerated left breast mass measuring  $24 \times 24$  cm that was noted to occupy the entire breast. Biopsy results from the lesion confirmed it to be infiltrating ductal carcinoma, of no special type, grade II. Surprisingly, the patient refused to undergo all forms of oncological treatment and opted to go for traditional medicines. The patient was kept on palliative care for controlling symptoms and improving quality of life. To date, 12 months of follow-up, the patient is still alive, although his condition has remarkably deteriorated. Respecting patients' wishes is always a top priority, but physicians may provide more substantial reasoning to convince patients to undergo the indicated treatments by knowing the effect of dismissing operative treatment on their eventual survival. In addition, understanding why patients refuse treatment is important to effectively address their concerns.

Keywords Male breast cancer, Treatment refusal, Palliative care, Case report

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## Introduction

Male breast cancer (MBC) is a malignant epithelial tumor that is histologically similar to its counterpart in the female breast [1]. It accounts for about 1% of all breast cancers. MBC is a rare but serious condition that necessitates prompt diagnosis and intervention. The male breast, despite its diminutive size, is susceptible to a wide spectrum of benign and malignant disorders at different ages. Of all the male breast lesions, gynecomastia is the commonest, and MBC is rare. Clinically it presents at an advanced stage compared to females due to less breast tissue. MBC translates to a lifetime risk of 0.11% but is responsible for a significant number of deaths [1-3]. Risk factors are similar to those in women and include age, first-degree relatives with breast cancer, exposure to exogenous estrogens or ionizing radiation, alcohol consumption, infertility, obesity, and prior benign breast disease [4]. The most important familial factor conferring an increased risk for MBC is the germline mutation of the BRCA2 tumor suppressor gene [2]. More than 90% of MBCs are of the luminal type, while triple-negative breast cancers (TNBCs) and human epidermal receptor-2 (HER-2) cancers are very rare (<5%) [5].

This case report describes the presentation, diagnosis, and subsequent refusal of treatment by a 74-year-old male patient from northern Tanzania with a longstanding breast mass diagnosed as invasive ductal carcinoma. The patient's decision highlights the challenges of managing breast cancer in males, especially when cultural and personal beliefs influence treatment choices.

# **Case presentation**

A 74-year-old Tanzanian male presented to our facility because of a left breast mass for more than one year. The patient reported a history of general body malaise for the past few weeks that was associated with exertional



Fig. 1 A photograph of the patient shows a left breast mass that is ulcerated, occupying the entire breast

dyspnea, headaches, and palpitations. He denied a history of vomiting or diarrhea but reported a loss of appetite. He denied the history of coughing, chest pain, and labored breathing. On examination, the patient was wasted, ill-looking, pale, afebrile, not jaundiced, and not cyanosed. He had no lower-limb swelling or lymphadenopathy. The left breast was enlarged because of the mass measuring  $24 \times 24$  cm that was occupying the entire breast (Fig. 1). The mass was mobile, non-tender, had multiple skin ulcerations, and was easily bleeding on touch. The overlying skin was shining, and there was no axillary lymphadenopathy.

His vital organ parameters and review of other systems were essentially stable. He denied a history of diabetes and hypertension. He had a long history of tobacco and alcohol use. His laboratory blood workup results were essentially within the normal range except for glycosylated hemoglobin (HbA1c), which was at 15.2% (reference 5.7-6.4%). CT scans of the breasts revealed a large, complex, solitary exophytic mass seen in the left breast without pulmonary metastasis (Fig. 2A-B). The mass appeared round and microlobulated, with solid and cystic components. The solid components appear heterogeneous, with internal vascularity in the power Doppler. There were associated skin changes (thickening) and some intralesional calcifications. No evidence of lymph node enlargement was seen in the axilla bilaterally. The contralateral breast appeared normal. The clinical diagnosis of breast cancer, BI-RADS 5, was considered. An abdominal-pelvic ultrasound was essentially unremarkable. The chest x-ray was normal, too. Pathology results reported an infiltrating ductal carcinoma, NST, grade II tumor ulcerating the skin. The tumor was made up of clusters of solid or nodular growth composed of atypical epithelial cells separated by thick and thin fibrous stroma. Individual cells were large and pleomorphic, with areas of cystic change (Fig. 3). Mitoses, tumor necrosis, and perivascular invasion were associated. Hormonal receptor status determination results indicated a strong immunostaining of >95% of all tumor cells for estrogen (ER) (Fig. 4A) and moderate immunostaining of nearly all cells for progesterone (PR) receptors (Fig. 4B), but a negative immunostaining of all tumor cells for HER-2 (Fig. 4C). Pathological tumor stage reported was pT4bNxMx.

The patient was discussed in a multidisciplinary specialty tumor board discussion where neoadjuvant chemotherapy was suggested, followed by surgery, radiotherapy, and hormonal therapy. However, the patient declined all forms of recommended treatment regimens, including endocrine therapy, despite multiple counseling attempts by a professional clinical psychologist and counselor. The reason for refusal of treatment, as pointed out by the patient, was that his wife too was diagnosed with advanced breast cancer, but she succumbed as soon as



Fig. 2 Antero-Posterior (AP) CT-scan image of the patient highlighting an ill-defined large left breast heterogenous enhancing soft tissue mass with central necrosis invading the subcutaneous tissue and pectoralis major muscle (A); axial view (B)



Fig. 3 Histopathology demonstrating an infiltrating breast tumor made up of clusters of solid or nodular growth composed of atypical epithelial cells separated by thick and thin fibrous stroma. Individual cells were large and pleomorphic, with areas of cystic change, H&E staining at 200 x original magnification



Fig. 4 Hormonal receptor status determination indicating a strong immunostaining of tumor cells for estrogen receptors, IHC staining at 100 x original magnification (A); a moderate immunostaining of nearly all cells for progesterone (PR) receptors, IHC at 40 x original magnification (B), and negative immunoexpression of all tumour cells by HER-2, IHC at 40 x original magnification (C)

she started oncological treatment. Therefore, the patient opted for traditional herbs that were unknown to us. He agreed to take palliative care that included opioids for pain management, wound care, psychotherapy, nutritional support, and hospice care. Phone call follow-up was done at six and twelve months; the patient was still alive, but he was still not ready to undertake oncological care. The patient described his condition as becoming worse with a very low functional status.

## Discussion

This case underscores the complexities of managing breast cancer in male patients, especially when cultural beliefs and personal preferences lead to refusal of treatment. Although incidences of MBC are increasing, the cancer remains rare [1]. However, since the incidence of MBC is significantly lower than that of female breast cancer, reducing its incidence and implementing prevention measures have not attracted the same attention [6]. An estimated 2700 cases of MBC were recorded in the US in 2019, 230 cases in Canada in 2017, 140 cases in Australia in 2014, and 149 cases in the Nordic region between 2012 and 2016 [7]. The majority of the treatments that professionals advise are derived from the data of female patients because there aren't any prospective data or guidelines for MBC.

As observed in our patient, who was in the 8th decade of his life, patients who refuse oncological care are more likely to be elderly [8]. Our patient declined all forms of treatment, including surgery, chemotherapy, and radiotherapy. Previous studies have established that older patients with invasive breast cancer are less actively treated than younger patients [3]. Although the reasons behind this association are not completely clear, this phenomenon may be attributed to the more habitual concept of death, the low estimate of the expected survival rate, as well as the fear and coping capacity of complications.

Surgical resection, in the form of a mastectomy for more advanced disease or a lumpectomy for less advanced disease, is the main therapeutic option for individuals with breast cancer [2]. Furthermore, it is also usual practice to remove metastatic lymph nodes by axillary lymph node dissection. Even after undergoing breast reconstruction surgeries, patients' quality of life is frequently negatively impacted by these invasive treatments, as seen by clear disruptions in their psychosocial functioning. Many people may decide not to have surgery as a result [9, 10].

The proportion of patients refusing breast cancer treatment is on the rise [5]. Our patient chose traditional medicine over conventional cancer treatment. The reason for this decision is not clear. Previous studies indicated that economic fluctuations may impair access to care, but there is also growing mistrust of the medical community and pursuit of alternative treatments [6]. Patients with a higher age at diagnosis, Africans, single, divorced, separated, and widowed patients; patients with higher-stage disease; and those lacking medical insurance were independently associated with an increased risk of refusing recommended cancer-directed surgery [11-13]. Patients who refuse recommended treatment are at higher risk of mortality. Cancer-related stigma can also be a significant factor in treatment refusal, particularly among breast cancer patients [14]. This stigma stems from societal beliefs, personal biases, and cultural misconceptions surrounding cancer, often causing patients to experience shame, fear, or feelings of hopelessness, all of which can hinder their willingness to pursue treatment [15].

As might be predicted, individuals who have surgery typically have a better prognosis than those who declined cancer-directed surgery, who had a poor prognosis

over the course of their survival [11]. Similarly, the data demonstrates that the benefit of surgery for survival persisted even after adjustment, highlighting the significance of surgical treatment for MBC patients prior to an advanced stage. If patients with advanced cancer refuse conventional oncological care, palliative care becomes critical to managing signs and symptoms, improving quality of life, and providing socio-psychological and emotional support [16]. It is crucial that the goals of palliative care are clearly communicated so as to avoid misunderstandings about its scope and also manage the patient's expectations. It is imperative that the palliative care is adapted to the patient's cultural and personal context to improve acceptance and adherence. The approach should be patient-centered, addressing physical, psychological, social, and spiritual needs. Palliative care includes symptom management, psychosocial support, and spiritual and existential needs. Non-medical therapies, such as participating in support groups for patients with advanced cancer, have also been recommended [17]. If the patient refuses conventional care due to mistrust, attending physicians are supposed to take time to understand the patient's concerns without being confrontational.

Our facility, Kilimanjaro Christian Medical Centre (KCMC), is a tertiary referral zonal hospital located in northern Tanzania. It offers a wide range of general and specialized services for cancer patients, including access to psychological counseling [18]. KCMC has a dedicated multidisciplinary team comprised of clinical psychologists, social workers, counselors, and psychiatrists experienced in psycho-oncology. These professionals address the emotional and mental health needs of patients. Psychological support is integrated with medical care, and thus, counselling is available throughout the treatment process, creating a holistic care plan that includes mental health services. However, the availability of these services is limited by factors such as staffing shortages, funding, institutional policies, and the growing patient population served. Our patient had a history of breast mass for more than a year. Delay in seeking care has also been observed in previous reports [2, 19]. The time lapse between symptoms and clinical consultation for most patients varies from 6 months to 1 year [4]. The refusal of treatment poses significant challenges for health care providers in terms of patient outcomes and highlights the need for culturally sensitive approaches in patient education and counseling, which in turn forms a barrier to understanding disease management and progression [7, 8, 11, 12].

# Conclusion

When patients with advanced cancer decline conventional oncological care, palliative care becomes central to managing symptoms, improving quality of life, and providing psychological and emotional support. The approach should be patient-centered, addressing physical, psychological, social, and spiritual needs. Understanding the myths and beliefs that drive care-seeking behavior and treatment adherence can inform the development of effective intervention models. However, patient autonomy must be respected even when it leads to refusal of treatment. This case emphasizes the importance of understanding the patient's perspective and addressing barriers to acceptance of medical interventions. There is a need for intervention research aimed at raising cancer awareness, particularly in the male community. This is critically important because male breast cancer is often overlooked and misunderstood due to its rarity and the perception that it is a women's disease. Increasing awareness among men can lead to earlier detection, improved outcomes, reduced stigma, and lowering the negative attitude associated with breast cancer, and ultimately saving lives.

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#### Author contributions

Alex Mremi: Conceptualization, investigation, methodology, data curation; writing– original draft. Glory Makupa: data curation, writing-review and editing. Munguatosha Ngowi: data curation, writing-review and editing.Subira Matku: data curation, writing-review and editing.Gad Murenzi: data curation, writing-review and editing.Theresia Mwakyembe: Data curation, methodology, Writing– review and editing.Edwin A. Liwa: original draft, methodology, data curation, writing-review and editing.

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#### Data availability

No datasets were generated or analysed during the current study.

#### Declarations

#### Ethical approval

Ethical approval was waived by the authors' institution.

### **Consent for publication**

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

#### **Competing interests**

The authors declare no competing interests.

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