Scientific Research Publishing

Journal of Cancer Therapy, 2026, 17(11), 559-565
https://www.scirp.org/journal/jct
ISSN Online: 2151-1942
ISSN Print: 2151-1934

Male Breast Cancer: A Three-Patient Case Series of Clinico-Pathological Features and Therapeutic Challenges

Alhassane I. Touré[1*], Mamady Keita[1,2,3], Mihimit Abdoulaye[4], Abdoulaye M. Camara[1], Malick Bah[1], Kalil Cisse[1], Ibrahima Kalil Condé[1], Mohamed F. Cisse[1], Boubacar 1 Barry[1], Ousmane Koulibaly[1], Mamadou C. F. Diallo[1], Abou Camara[1], Arbaba Balde[1], Bangaly Traoré[1]

[1]Cancer Department, Donka National Hospital, Conakry Teaching Hospital, Conakry, Guinea
[2]Department of Radiotherapy, The Fourth Affiliated Hospital of Hebei Medical University, Shijiazhuang, China
[3]Hebei Provincial Key Laboratory of Tumor Micro-Environment and Drug Resistance, Shijiazhuang, China
[4]Adam Barka Abeche University, N'Djamena, Tchad
Email: *alhassanetoure@yahoo.fr, mamadykeita@rocketmail.com

How to cite this paper: Touré, A.I., Keita, M., Abdoulaye, M., Camara, A.M., Bah, M., Cisse, K., Condé, I.K., Cisse, M.F., Barry, B1., Koulibaly, O., Diallo, M.C.F., Camara, A., Balde, A. and Traoré, B. (2026) Male Breast Cancer: A Three-Patient Case Series of Clinico-Pathological Features and Therapeutic Challenges. *Journal of Cancer Therapy*, **17**, 559-565.
https://doi.org/10.4236/jct.2026.1711046

Received: September 30, 2026
Accepted: November 2, 2026
Published: November 5, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/

Open Access

Abstract

Introduction: Breast cancer in men is a rare condition, accounting for approximately 1 per cent of all breast cancers and less than 0.9 per cent of cancers in men. Owing to its rarity and low public awareness, the diagnosis is often made at a late stage. Furthermore, treatment recommendations are based primarily on data from female breast cancer, in the absence of specific studies in men. **Objective**: To describe the clinical, pathological and therapeutic characteristics of three cases of male breast cancer managed in our oncology department. **Methods**: We conducted a retrospective study involving three male's patients with breast cancer. Demographic, clinical, radiological, pathological and therapeutic data were collected from medical records and subsequently analysed. **Results**: The patients were aged between 34 and 60 years and presented with a variety of clinical presentations, ranging from a painless breast nodule to a locally advanced ulcerated and exudative mass. Pathological examination revealed two invasive ductal carcinomas and one papillary carcinoma. Management, tailored to the stage of the disease, was based on a multidisciplinary approach combining surgery, radiotherapy, chemotherapy and hormone therapy if indicated. **Conclusion**: Although rare, breast cancer in men presents a real diagnostic and therapeutic challenge. Greater awareness amongst healthcare professionals and the general public, as well as the development of specific studies, are essential to promote earlier diagnosis and improve the management of this condition.

Keywords

Male Breast Cancer, Invasive Ductal Carcinoma, Papillary Carcinoma, Case Series, Donka, Guinea

1. Introduction

Male breast cancer (MBC) is a rare malignancy, accounting for approximately 1% of all breast cancer diagnoses and fewer than 0.9% of cancers occurring in men [1]. Its low incidence, together with limited awareness among both patients and healthcare professionals, may contribute to delayed diagnosis and the frequent presentation of advanced disease. Moreover, because of the paucity of male-specific evidence, therapeutic strategies are largely extrapolated from recommendations established for female breast cancer [2].

Several risk factors have been associated with an increased risk of MBC, including advanced age, a family history of breast cancer, genetic predisposition particularly BRCA2 mutations and conditions associated with hyperoestrogenism, such as Klinefelter syndrome and liver cirrhosis [3]-[5]. These factors underscore the heterogeneous biological and clinical context in which this rare disease develops.

In sub-Saharan Africa, the challenges surrounding MBC are further compounded by limited access to specialized care, breast imaging, and comprehensive pathological and immunohistochemical assessment. These constraints may hinder accurate diagnosis, biological characterization, and treatment selection [5]-[7]. Despite these challenges, epidemiological and clinical data on MBC from the region remain scarce, leaving important gaps in the understanding of its presentation and management in African populations.

Against this background, we report a retrospective series of three consecutive male patients with breast cancer managed at the Oncology Department of Donka National Hospital in Conakry, Guinea, over a one-year period. By documenting their clinical, pathological, and therapeutic characteristics, this case series contributes to the limited African literature on MBC and highlights the diagnostic and therapeutic challenges encountered in a resource-constrained setting.

2. Method

2.1. Study Design, Case Selection and Eligibility Criteria

This retrospective descriptive case series included male patients with histologically confirmed breast cancer managed in the Oncology Department of Donka National Hospital, Conakry, Guinea, over a one-year period from January to December 2023. Eligible patients were those with a confirmed histopathological diagnosis of MBC and medical records containing sufficient information to document their clinical presentation and therapeutic management. Patients with an unconfirmed diagnosis or insufficient documentation to establish eligibility were excluded. All identified cases meeting these criteria during the study period were included.

Data were extracted from individual medical records and covered sociodemographic characteristics, clinical presentation, diagnostic investigations, histopathological and immunohistochemical findings, treatment modalities, and clinical outcomes. Missing data were not imputed; variables that were undocumented or unavailable in the medical records were recorded as missing, and analyses were restricted to the available information.

Treatment decisions were discussed by a multidisciplinary tumor board and tailored to each patient's disease stage and individual clinical characteristics.

2.2. Ethical Considerations

This retrospective case series was based on clinical data extracted from patients' medical records at Donka National Hospital, Conakry, Guinea. No formal approval from an ethics committee was obtained for this study. Patient confidentiality was maintained throughout data collection and manuscript preparation, and identifying information was removed from the reported data. Consent for publication of the clinical information and associated images was obtained in writing from the patients.

3. Results

Three male patients, aged 34, 49 and 60, were treated for breast cancer in our oncology department of Donka National Hospital. The mean age was 47.6 years. None had a personal or family history of breast cancer.

3.1. Clinical Characteristics

The clinical presentations were varied according to the patient. The 60-year-old patient presented with a painless mass behind the left nipple. The 49-year-old patient presented with a mass in the right breast associated with bloody nipple discharge. The 34-year-old patient presented with a large, ulcerated and nodular mass fixed to the deep planes. Tumor sizes ranged from 3 to 6 cm, with clinical stages ranging from cT2N0M0 to cT4cN0M0 (Table 1 and Figure 1(a), Figure 1(b)).

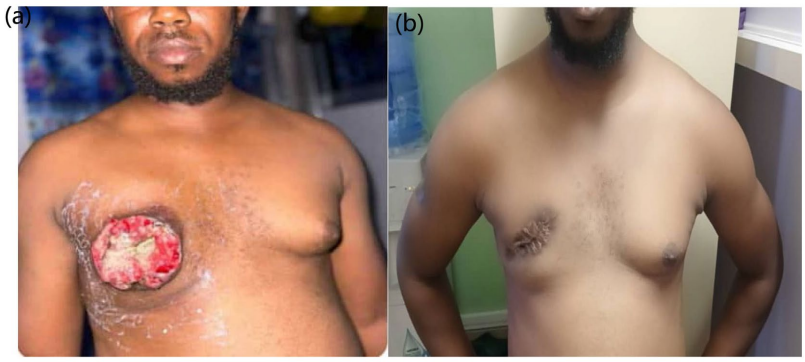


Figure 1. (a) A 34-year-old patient, with no family history of cancer, presenting with a hard, ulcerated and nodular breast mass that bleeds at the slightest touch and is fixed to the chest wall. (b) According to the RECIST 1.1 criteria, a complete response was achieved after six cycles of neoadjuvant chemotherapy (three cycles of AC followed by three cycles of docetaxel 80 mg/m^2).

3.2. Diagnostic Investigations

A breast ultrasound scan and a thoraco-abdominal-pelvic computed tomography (CT) scan were performed on all three patients. The lesions were classified as ACR 5 in all cases. None of the patients had distant metastases at the time of diagnosis.

3.3. Pathological and Immunohistochemical Findings

All patients had microbiopsy prior to treatment. Pathological examination revealed two non-specific (NOS) invasive ductal carcinomas, graded SBR II and III, and one grade III invasive papillary carcinoma. Immunohistochemical analysis showed expression of hormone receptors in two cases, aged 49 years and 60 years old. HER2 status was rated 2+ and 3+ in the two cases. For the case with HER2 2+, fluorescence *in situ* hybridisation (FISH) was performed to confirm HER2 amplification status. Based on immunohistochemistry and FISH results, tumors were classified as HER2-positive in the two cases, respectively. The Ki-67 proliferation index ranged from 10 to 15 per cent (Table 1).

3.4. Treatment

All three patients underwent mastectomy with axillary lymph node dissection. Two patients received adjuvant radiotherapy combined with endocrine therapy using tamoxifen. The third patient, who presented with a locally advanced tumor, received neoadjuvant chemotherapy before surgery, followed by adjuvant chemotherapy without radiotherapy. In our institution, neoadjuvant chemotherapy consists of six cycles: three cycles of doxorubicin (60 mg/m^2) plus cyclophosphamide (500 mg/m^2), followed by three cycles of docetaxel (80 mg/m^2). Among the two patients with HER2-positive tumors, only the 49-year-old patient received trastuzumab (Herceptin). Although trastuzumab was prescribed for the second patient, treatment could not be initiated because of financial constraints. This highlights the impact of limited financial resources on access to HER2-targeted therapy in our setting.

3.5. Outcome

At the 3-year follow-up, two patients remained alive and under regular clinical surveillance. The first patient, who presented with early-stage disease, successfully completed multimodal therapy consisting of mastectomy with axillary lymph node dissection followed by adjuvant radiotherapy and tamoxifen. At 36 months' post-treatment, he showed no evidence of locoregional recurrence or distant metastasis and continued routine follow-up. The second patient completed her primary treatment course but died during the second year of follow-up. The third patient, who presented with locally advanced disease, underwent six cycles of neoadjuvant chemotherapy, achieving a complete clinical response. However, this response was documented based on physical examination and clinical photography. He subsequently underwent surgical resection followed by endocrine ther-

apy with tamoxifen. Due to financial constraints, adjuvant radiotherapy could not be administered. Although he remained alive and free of detectable disease at the 36-month follow-up assessment, he was maintained under intensified clinical surveillance owing to his elevated risk of local recurrence (Table 1).

Table 1. Breakdown of cases according to clinical, para clinical, pathological and therapeutic characteristics.

Criteria	Case 1	Case 2	Case 3
Age	60	49	34
Laterality	Left breast	Right breast	Right breast
Signs and symptoms	A painless, firm and mobile mass behind the areola	Bloody discharge from the nipple; a mass in the upper outer quadrant, painless, firm and mobile	A hard, ulcerated and nodular mass in the breast bleeds on contact and is fixed to the chest wall
Pre-treatment clinical size (cm)	3	4	6
Clinical TNM-stage	T2N0M0	T3N1M0	T4cN0M0
Histological type	Infiltrating ductal carcinoma, unspecified	Infiltrating papillary carcinoma	Infiltrating ductal carcinoma, unspecified
SBR grade	II	III	III
Hormone receptors	Positive	Positive	Missed data
Her 2 status	Score 2	Score 3	Missed data
Ki 67	15%	10%	Missed data
Lymph node ratio	3/17	5/10	Missed data
MDT	Yes	Yes	Yes
Treatment strategy	MRM + EBRT + Tamoxifen	NAC+ MRM + EBRT + Tamoxifen	NAC+ MRM + Adj. chemotherapy

MDT: Multi-disciplinary Treatment; **MRM**: Modified radical Mastectomy; **EBRT**: External Beam Radiotherapy, **NAC**: Neo-adjuvant chemotherapy.

4. Discussion

Breast cancer in men is a rare condition, accounting for around 1 per cent of all breast cancers and less than 0.5 per cent of malignant tumors in men [1]. Despite this low incidence, it remains a condition that is still not sufficiently recognised, which contributes to frequent delays in diagnosis. In our series, the mean age at diagnosis was 47.6 years, lower than that generally reported in Western series, where it ranges between 60 and 70 years [5]. This difference may reflect epidemiological and biological characteristics specific to African populations, but it may also be related to delayed diagnosis, with patients often presenting only when symptoms become clinically apparent.

From a pathological perspective, non-specific infiltrating ductal carcinoma is the predominant histological form of MBC, accounting for over 85 per cent of cases [7]. Our findings are consistent with these data, with two patients presenting with invasive ductal carcinoma. The third patient had invasive papillary carcinoma, a rare histological variant reported in only 2 - 4 per cent of cases [8].

Furthermore, male MBC is characterised by high expression of hormone receptors, observed in over 90 per cent of cases [6] [9]. This finding was also observed in our series, with all the tumors assessed being hormone-dependent, thereby reinforcing the significant role of hormone therapy in the treatment strategy for these patients.

Assessment of Her 2 status and the Ki-67 proliferation index two key markers for prognosis and treatment planning could only be carried out in a subset of patients due to local technical constraints. This limitation illustrates the persistent difficulties encountered in resource-limited countries in ensuring a comprehensive biological characterisation of tumors, which is essential for personalised care [5]. Furthermore, the lack of analysis of BRCA mutations, particularly BRCA2, constitutes another limitation of our study, even though these genetic alterations are recognised as major factors in predisposition to breast cancer in humans [3].

Mastectomy with axillary lymph node dissection, which remains the standard surgical treatment for breast cancer in men, was performed on all our patients. Adjuvant treatments, including radiotherapy, tamoxifen hormone therapy and chemotherapy, were tailored according to the stage of the disease and tumor characteristics. This treatment strategy is in line with international guidelines, whilst taking into account the specific constraints of resource-limited settings [2].

Our findings also highlight the need to strengthen diagnostic and therapeutic capacity in low-resource countries, in particular by improving access to specialist investigations and innovative treatments. They also emphasise the importance of raising awareness of MBC amongst healthcare professionals and the general public in order to facilitate earlier diagnosis. Finally, the development of genetic counselling programs and targeted screening for high-risk individuals, particularly those with a hereditary predisposition, could help to improve the management of this condition.

5. Conclusion

Breast cancer in men, although rare, is a condition for which diagnosis and management remain inadequate, particularly in resource-limited countries. Our series highlights the diversity of clinical presentations, the predominance of invasive ductal carcinoma, and the value of immunohistochemistry in guiding treatment. Delays in diagnosis, limited access to molecular characterisation tests, and the constraints associated with patient follow-up illustrate the challenges faced by healthcare systems in these settings. Raising awareness amongst the general public and healthcare professionals, improving access to diagnostic tools, and developing genetic counselling and targeted screening programs for high-risk individuals are key priorities. Finally, the implementation of protocols tailored to African contexts and the establishment of registries dedicated to male breast cancer are essential to optimize clinical outcomes, standardize patient management, and provide robust local data to support future clinical research.

Acknowledgements

We would like to thank all our colleagues in the Oncology Department of Donka National Hospital, Conakry, Guinea, and at the Cancer Institute of Le Dantec, Dakar, Senegal, for their valuable support and collaboration.

Author Contributions

All authors contributed to the design and writing of this study. All the authors have read and agreed to the final manuscript.

Conflicts of Interest

The authors declare no competing interests.

References

[1] Abdelwahab Yousef, A.J. (2017) Male Breast Cancer: Epidemiology and Risk Factors. *Seminars in Oncology*, **44**, 267-272. https://doi.org/10.1053/j.seminoncol.2017.11.002

[2] Hassett, M.J., Somerfield, M.R., Baker, E.R., Cardoso, F., Kansal, K.J., Kwait, D.C., *et al.* (2020) Management of Male Breast Cancer: ASCO Guideline. *Journal of Clinical Oncology*, **38**, 1849-1863. https://doi.org/10.1200/jco.19.03120

[3] Khan, N.A.J. and Tirona, M. (2021) An Updated Review of Epidemiology, Risk Factors, and Management of Male Breast Cancer. *Medical Oncology*, **38**, Article No. 39. https://doi.org/10.1007/s12032-021-01486-x

[4] Ferzoco, R.M. and Ruddy, K.J. (2016) The Epidemiology of Male Breast Cancer. *Current Oncology Reports*, **18**, Article No. 1. https://doi.org/10.1007/s11912-015-0487-4

[5] Evans, D.G.R., Susnerwala, I., Dawson, J., Woodward, E., Maher, E.R. and Lalloo, F. (2010) Risk of Breast Cancer in Male BRCA2 Carriers. *Journal of Medical Genetics*, **47**, 710-711. https://doi.org/10.1136/jmg.2009.075176

[6] Cook, B., Nayar, S., Filson, S. and Yap, T. (2024) The Incidence of Male Breast Cancer in Klinefelter Syndrome and Its Proposed Mechanisms. *The Breast*, **78**, Article ID: 103827. https://doi.org/10.1016/j.breast.2024.103827

[7] Ndom, P., Um, G., Bell, E.M.D., Eloundou, A., Hossain, N.M. and Huo, D. (2012) A Meta-Analysis of Male Breast Cancer in Africa. *The Breast*, **21**, 237-241. https://doi.org/10.1016/j.breast.2012.01.004

[8] Sarmiento, S., McColl, M., Musavi, L., Gani, F., Canner, J.K., Jacobs, L., *et al.* (2020) Male Breast Cancer: A Closer Look at Patient and Tumor Characteristics and Factors That Affect Survival Using the National Cancer Database. *Breast Cancer Research and Treatment*, **180**, 471-479. https://doi.org/10.1007/s10549-020-05556-y

[9] Methamem, M., Ghadhab, I., Hidar, S. and Briki, R. (2020) Breast Cancer in Men: A Series of 45 Cases and Literature Review. *Pan African Medical Journal*, **36**, Article No. 183. https://doi.org/10.11604/pamj.2020.36.183.22574