



Case report

# Male Breast Ductal Carcinoma in A Middle-age Libyan Patient: A Case Report

Ramadan Abuhajar<sup>1,2\*</sup>, Mohamed Elfagieh<sup>3,4</sup>, Hania Alfargani<sup>5</sup>

**Citation:** Abuhajar R, Elfagieh M, Alfargani H. Male Breast Ductal Carcinoma in A Middle-age Libyan Patient: A Case Report. *Libyan Int J Oncol*. 2022;1(2):69-71.

**Received:** 11-11-2022

**Accepted:** 12-12-2022

**Published:** 15-12-2022



**Copyright:** © 2022 by the authors.

Submitted for possible open access

publication under the terms and

conditions of the Creative Commons

Attribution (CC BY) license

(<https://creativecommons.org/licenses/by/4.0/>).

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

<sup>1</sup> Department of Diagnostic Radiology, National Cancer Institute, Misurata, Libya.

<sup>2</sup> Faculty of Medicine, Almergib University, Alkhoms, Libya.

<sup>3</sup> Department of Surgical Oncology, National Cancer Institute, Misurata, Libya

<sup>4</sup> Faculty of Medicine, Misurata University, Libya.

<sup>5</sup> Department of Medical Oncology, National Cancer Institute, Misurata, Libya.

\*Correspondence: [raabuhajar@gmail.com](mailto:raabuhajar@gmail.com)

## Abstract

Breast cancer is rare in males; it represents <1% of all breast cancers. The usual age presentation is between 60 and 70 years old in average. In the present report we present a clinical case of invasive ductal breast cancer in a middle age male Libyan patient.

**Keywords:** Male, Breast Cancer, CT Scan, Predisposing Factors.

## Introduction

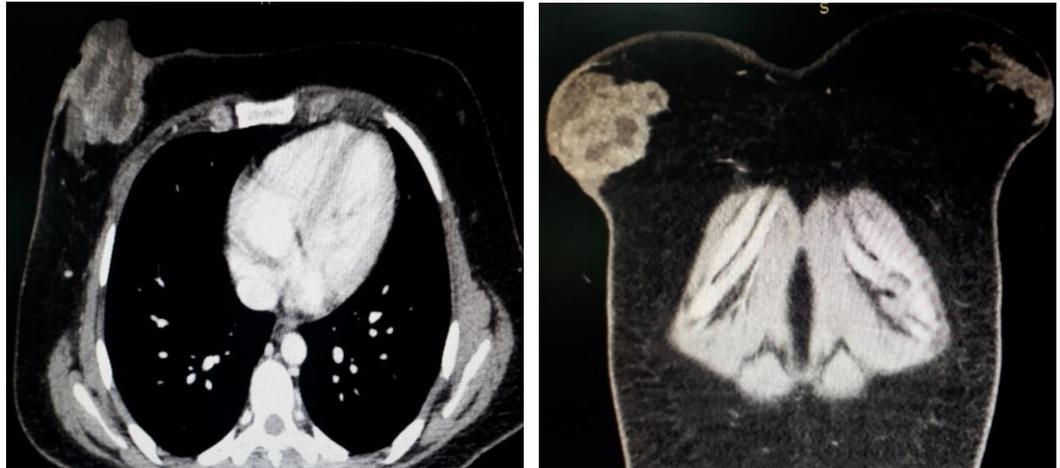
Breast cancer is rare in males; it represents <1% of all breast cancers. The breast cancers incidence in males with respect to females is 1:100. The age presentation is between 60 and 70 years old in average, although male breast cancers were less among younger patients. Most of the patients are presented to the clinics with clinical symptom of sub-areolar swelling in advanced stage. The left breast is affected more than the right breast [1-6]. The susceptibility of high risk breast cancer among families with mutated genes of BRCA1 and BRCA2. Mutation of BRCA2 gene is more associated to male breast cancer than BRCA1 gene and responsible for about 68% of the patients. Male breast cancers were strongly associated with family history of breast cancer. First and second-degree relatives with breast cancers are associated with increasing four-folds in male breast cancers. The other risk factors include radiation exposure and alteration of hormone as in high estrogen and progesterone levels with low level of androgen. Breast cancers among males more frequent in Jewish race, some African and American countries [5,7-12]. Diagnosis of breast tumors depends on clinical data, ultrasound, mammography, CT scan and MRI. Confirmation of final diagnosis is through biopsy and histopathology [3]. In this article we report a clinical case of invasive ductal breast cancer in a middle age male Libyan patient.

## Case presentation

A 48-year old Libyan male patient presented to National Cancer Institute, Misurata-Libya with painless swelling in the right breast. No discharge, pain or other symptoms. Patient is diabetic, hypertensive and he has family history of breast cancer (mother with breast cancer at 40 years). No history of shortness of breathing, loss of appetite, weight loss or bone pain. On examination; the breast swelling in subareolar region with normal skin color, palpable and non-fixed mass with nipple retraction.

All basic investigations including CBC, urea, creatinine, serum electrolytes, and liver function tests were within normal limits. Immuno-serological tests were normal. CT-scan of the chest, abdomen and pelvis revealed a large soft tissue mass in the right breast, measuring about 4.5 x 6.5 x 4.8 cm. It was heterogeneously delayed enhanced with contrast media as well as necrotic change was noted. with irregular outline infiltrating cutaneous and subcutaneous tissue, also nipple involvement. The tumor was seen in retro-areolar region of the right breast. The scan revealed no focal lesions in both lungs parenchyma. No pleural thickening or pleural collection. The mediastinum is centered, normal in wideness and no mediastinal lesion. Normal size and shape of the heart, no pericardial changes. No abnormalities

in the thoracic skeleton and thoracic soft tissue. No axillary, sub- and supra-clavicular, mediastinal or hilar lymphadenopathy (Figure 1). Normal size and shape of the liver, no focal or diffuse lesion in the hepatic parenchyma. No detected changes in intrahepatic, extrahepatic bile ducts and gallbladder. Normal appearance of pancreas, spleen, both kidneys and suprarenal glands. Normal shape and wall thickening of urinary bladder. No increased size of prostate with normal homogeneous density. No pathological changes in loops of the bowel with normal mesentery. No pelvic collection or abdominopelvic adenopathy, no osseous deposit. Estrogen receptors; strongly positive in 95% of tumor cell nuclei, progesterone receptors; strongly positive in 70%, and GATA-3 was positive. Biopsy was performed and the diagnosis was invasive ductal carcinoma. Patient started to receive adjuvant chemotherapy.



**Figure 1:** Axial and coronal CT scan of chest reveal lobulated soft tissue mass in the right breast enhanced with contrast and with necrosis in a 48-year old male Libyan patient.

### Discussion

Male breast cancer study is not easy due to its rarity compared to female breast cancer which is 100-fold more in females. Because male breast cancer is rare and painless lesion, so it is usually discovered late and in advanced stage.

In the present case the diagnosis of the tumor was confirmed as invasive ductal carcinoma. Most patients with male breast cancers are within range of age between 60 and 70 years old and usually affects the left breast more than the right breast. The present case is a 48-year old male Libyan patient and the cancer was in the right breast. Predisposing factors of male breast cancer are similar to the predisposing factors in female breast cancer include hormonal alteration, obesity, diabetes mellitus, exogenous hormones, family history of breast cancer, etc. Alteration of estrogen ratio to androgen is a risk factor in male breast cancer [11]. The investigated patient with history of diabetes mellitus, increased levels of estrogen, progesterone and his close relative (his mother) has history of breast cancer at 40 years are the main predisposing factors of male breast cancer in the patient.

CT scan was playing the role in diagnosis and staging of the breast cancer. It gave detail description of the tumor mass in the breast with features of malignancy. CT is the modality of choice for staging of the neoplasm with scanning of the chest and abdomen for detect or rule out any focal metastasis, lymphadenopathy or other changes. CT scan is the standard imaging method of chest, bones beside to soft tissue organs in abdomen and pelvis. CT scan with histopathology, tumor markers and the related investigations gave rise to decision of treatment steps.

In conclusion, in the present report we presented a clinical case of a middle age male Libyan patient presented with right breast invasive carcinoma.

### REFERENCES:

1. Yoo J, Choi HJ, Lee HJ, Kang SJ. Invasive ductal carcinoma in male breast: A case report and review of the literature, *Cancer research and treatment*, 2002;34(3):239-242.
2. Ojevwe F, Jessamy K, Ojevwe C, Ma N, Bhardwaj A, Sharma N. Clinical case reports invasive ductal carcinoma of the breast in an elderly male veteran with solid papillary growth pattern: A case report, *J Clin Case Rep* 2015;5:10.

3. Sosa A, Espinoza S, Aguilar R, Palencia R. Male Breast Cancer: Case Report. *Rev. Colomb. Radiol.* 2017; 28(4): 4810-5.
4. El Fouhi M, Mesfioui A, Benider A. Male breast cancer: a report of 25 cases. *Pan Afr Med J.* 2020; 37: 343.
5. Sanguinetti A, Polistena A, Lucchini R, Monacelli M, Galasse S, Avenia S, et al. Male breast cancer, clinical presentation, diagnosis and treatment: Twenty years of experience in our Breast Unit. *Int J Surg Case Rep.* 2016;20S(Suppl):8-11. doi: 10.1016/j.ijscr.2016.02.004.
6. Madeira M, Mattar A, Passos RJ, Mora CD, Mamede LH, Kishino VH, et al. A case report of male breast cancer in a very young patient: what is changing? *World J Surg Oncol.* 2011 Feb 3;9:16. doi: 10.1186/1477-7819-9-16.
7. Brentas M, Hancock J. Ductal Carcinoma in situ of the Male Breast. *Breast Care* 2016;11:288-290.
8. Chern J, Liao L, Baradli R, Tinney E. Case report: ductal carcinoma in situ in the male breast, *Case Reports in Radiology*, 2002:1-2.
9. Calip GS, Kidd J, Bernhisel R, Cox HC, Saam J, Rauscher GH, et al. Family history of breast cancer in men with non-BRCA male breast cancer: implications for cancer risk counseling. *Breast Cancer Res Treat.* 2021 Jan;185(1):195-204. doi: 10.1007/s10549-020-05922-w.
10. Brinton LA, Key TJ, Kolonel LN, Michels KB, Sesso HD, Ursin G, et al. Prediagnostic Sex Steroid Hormones in Relation to Male Breast Cancer Risk. *J Clin Oncol.* 2015 Jun 20;33(18):2041-50. doi: 10.1200/JCO.2014.59.1602.
11. Gonzalez RS, Wang J, Kraus T, Sullivan H, Adams AL, Cohen C. GATA-3 expression in male and female breast cancers: comparison of clinicopathologic parameters and prognostic relevance. *Hum Pathol.* 2013 Jun;44(6):1065-70. doi: 10.1016/j.humpath.2012.09.010.