The 'Vanishing Breast': An Unusual Presentation of Infiltrating Ductal Carcinoma

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Abstract

Introduction: Breast cancer is a leading cause of cancer related morbidity and mortality world over. Most cases will present as palpable lump or bloody nipple discharge. However, there are cases of atypical presentation in the literature.

Case summary: We report a case of a 50 year old female with infiltrating ductal carcinoma presenting as spontaneous reduction and complete loss of breast tissue.

Conclusion: Breast cancer presentation can be atypical and non-specific. There is need for Kenyan females to take up radiological screening.

Key words: Breast cancer, vanishing breast, breast self examination, pleurodesis.

Introduction

Breast cancer is a leading a cause of cancer related morbidity and mortality among females worldwide (1). While most cases of breast cancer present either as a palpable mass or lump (2, 3), there are occasional reports of unusual presentation of this disease. We report a case of a 50 year old Kenyan female with infiltrating ductal carcinoma presenting as spontaneous reduction and complete loss of breast tissue.

Case Report

A 50 year old Kenyan female of African descent presented to our hospital with a dry cough and right pleuritic chest pain for a week. She also had a right breast ulcer for four months. This ulcer had started seven months earlier as 'shrinking' of the breast without any lumps. She denied use of any topical applications or surgery (this history was corroborated from the spouse and children). She had menarche at 14 and her first delivery at 30 years of age. She breastfed each of her two children until they were three years old. She had no history of use of oral contraceptive pills or hormonal replacement therapy. She denied family history of breast, ovarian or endometrial cancer. She had never noted any breast swelling, lumps, skin change or breast asymmetry prior to the onset of the breast ulceration despite reporting regular breast self examination. A nurse by profession, she had no history of alcohol or cigarette use. A routine pap smear 2 years earlier had showed a normal cervix. The reason for presenting to us was the cough and chest pain.

Examination revealed absent right breast tissue. There was circum-areolar ulceration with oedema and orange-peel appearance on the surrounding skin (figures1, 2). She had matted ipsilateral axillary and supraclavicular lymph nodes. Contralateral breast and axilla were unremarkable. Further examination and chest radiograph revealed right sided pleural effusion (figures 3, 4). Thoracostomy drained over 2 litres of serous fluid. Incisional biopsy showed grade III infiltrating ductal carcinoma. Chemical pleurodesis was done with 5 grams of talcum powder. Once stable we referred her to a higher hospital for hormone receptor analysis, contralateral mammography and further relevant therapy.

Figure 1: Ulceration and lost breast tissue.

Figure 2: Ulceration and lost breast tissue, peau d' orange

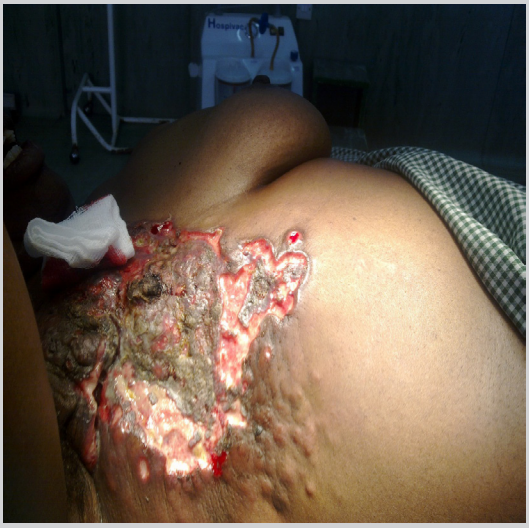


Figure 3: Chest radiograph showing right pleural effusion.

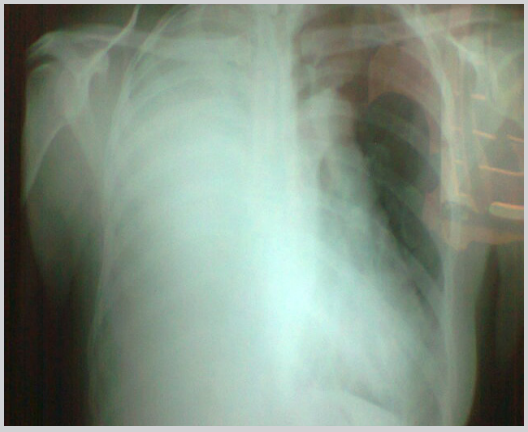
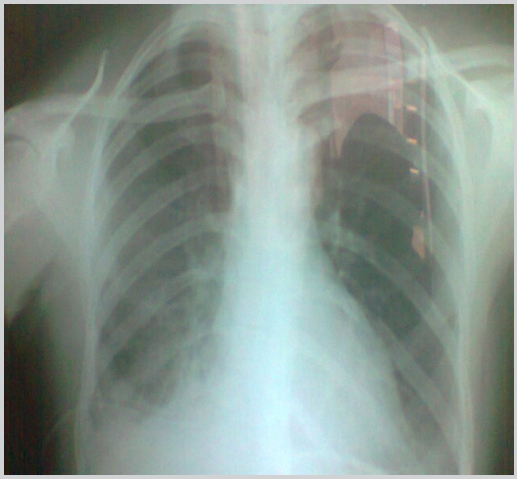


Figure 4: Chest radiograph after drainage of the effusion.



Discussion

Infiltrating ductal carcinoma is the commonly diagnosed breast cancer cell type in up to 75% of cases (4, 5) followed by invasive lobular carcinoma (15%) (5, 6). Others are medullary (5%), mucinous (<5%), tubular (1-2%), papillary (1-2%) metaplastic (<1%) and mammary Paget disease (1-4%) (5). Western statistics show that black women are more likely to present with advanced disease and therefore carry less survival rates (4, 7). The commonest clinical presentation of breast cancer is either a lump or mass (in up to 76% of cases) (3), or an abnormal finding on imaging (mammography or ultrasound) (2, 3). Only on rare occasions does breast cancer present differently. There are a number of rare presentations of breast cancer reported in literature (Table 1).

Table 1: Published uncommon presentations of breast cancer

Authors (year)	Publication type	Peculiarity
Zakaria S *et al* (2007)(2)	Case report	Presentation as unilateral arm oedema
Jafri NF *et al.*(2007)(3)	Radiological case report	Mammographic finding of a 'shrinking breast'
Richter G *et al.* (2011) (8)	Case report	Trifocal cancer with giant osteoclast-like cells
Sandhu NP *et al.* (2010) (9)	Case report	Presentation at young age (27 years)
Esses KM *et al.*(2009) (10)	2 case reports	Histologic subtype carcinosarcoma
Arora S *et al.* (2009) (11)	Case report	Histologic subtype -metaplastic carcinoma
Samaha AA *et al.*(2008) (12)	Biochemical case report	Paraneoplastic limbic encephalitis
Batori M *et al.*(2006)(13)	2 Case reports	Presentation at young age (28, 30 years)
Pfeifer RB *et al.*(2002)(14)	Case report	Presentation as venous thrombosis
Abe H *et al* (2000)(15)	Case report	Occult cancer presenting as axillary metastasis
Levi I *et al* (1987)(16)	Case report	Presentation as Mondor's disease (sclerosing thrombophlebitis of subcutaneous breast veins)

These scattered case reports underscore the peculiarity of breast cancer as far as signs and symptoms are concerned. As can be concluded from this analysis of literature however, the rare presentations that have been published demonstrate peculiarities on histological and demographic (age) perspectives. Few have reported unique clinical presentation (2, 15). To our knowledge, no documented literature is available highlighting the initial presentation of breast cancer as a spontaneous reduction and complete loss of breast tissue. The report by Jafri et al (6) is radiological. While appreciating that breast atrophy can be a presentation of breast cancer (6), we would expect a lump to have been an earlier presentation before atrophy. There is a possibility that our patient's cancer could have been picked earlier had she had a mammographic or sonographic assessment. We cannot tell whether there was some subtle lump that she was not able to detect earlier. Being a professional nurse, her insistence that she was doing regular breast self examination cannot be completely ignored. It is worth noting that while it has been fronted as a cheap and effective screening method that can help pick breast cancer early, the value of breast self examination has been a subject of controversy and conflicting views (17). Our patient's presentation is a reminder of the varied ways in which breast cancer can present. It is thus appropriate to stress to patients the value of regular clinical evaluation, mammography and ultrasound in addition to breast self examination. This way we are likely to pick more cases earlier and improve the outcomes of breast cancer management.

Conclusion

Breast cancer presentation can be atypical and non-specific. There needs to be sensitization for female Kenyans aged above 40 years to take the habit of regular clinical and radiological screening for breast cancer.

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Consent

Informed consent was obtained to publish this case report and any accompanying images