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A Case Report Of A Rare Presentation Of Breast Carcinoma Metastases To The Bladder.

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ORIGINAL

Abstract
Bladder metastases secondary to breast carcinoma is not uncommon. However, they only account for 2% of all the reported bladder metastases cases (1). Here, we are reporting a patient diagnosed with breast carcinoma and bladder metastases.

Introduction

Breast cancers rarely metastasize to the brain, adrenal glands, spleen, ovary, peritoneum, pancreas, kidney, thyroid, heart, and bladder (2). Bladder metastases originating from breast cancer are considered unusual as it only accounts for 2% of all reported bladder metastases cases.

Case Report

A 52-year-old Malay lady with no known co-morbid or family history of carcinoma presented to us with bilateral breast swelling and right arm lymphoedema. Further examination showed both breasts were firm and grossly swollen with the erythema. Blood investigations revealed that the patient had markedly deranged levels of creatinine and urea. Ultrasound of both breasts and trucut biopsy were done which was reported as triple negative infiltrating ductal carcinoma of the breasts. Ultrasound imaging of the urinary system was also performed, which surprisingly showed a bladder mass with bilateral hydronephrosis. Further history did not indicate that patient had any hesitancy, incontinence, or hematuria. Cystoscopy of the bladder showed a mass at the trigone occluding both ureteric orifices. Biopsy was taken and a right retrograde pyelogram (RPG) and stenting, and the left kidney underwent radiologically assisted left percutaneous nephrostomy. Histopathological diagnosis of the bladder mass biopsy showed it being infiltrating carcinoma. The malignant cells were positive for CK7 where as CK20 and Calretinin were negative. A staging Computed Tomography (CT) thorax, abdomen, and pelvis was done once the kidney function improved. Scans showed bilateral breast carcinoma with metastases to the lung, liver, peritoneum, and also bladder. In view of her extensive disease, she was offered supportive palliative treatment. Unfortunately, she passed away within 6 weeks after she was first diagnosed with advanced breast carcinoma.

Discussion

Bladder metastases are rare. Among the primary tumours that have been reported to metastasize to the bladder, in descending order of frequency, are gastric cancer, malignant melanoma, breast cancer, and lung cancer.

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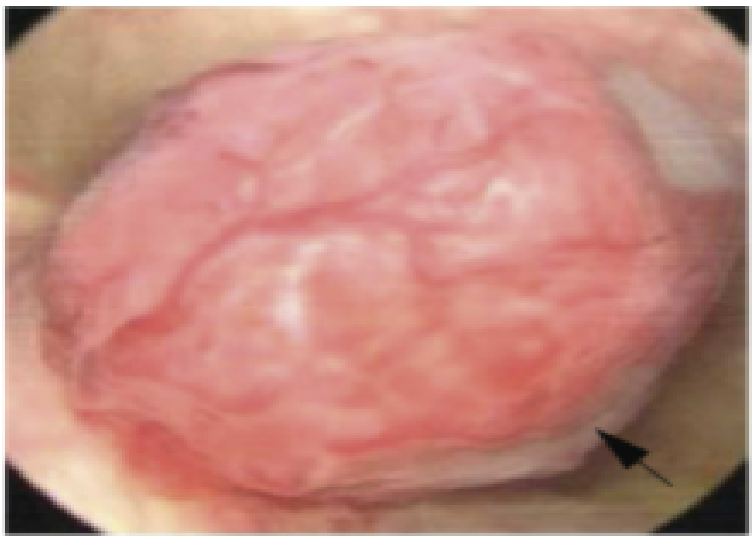

Figure 1. Bladder Tumour In Cystoscopy

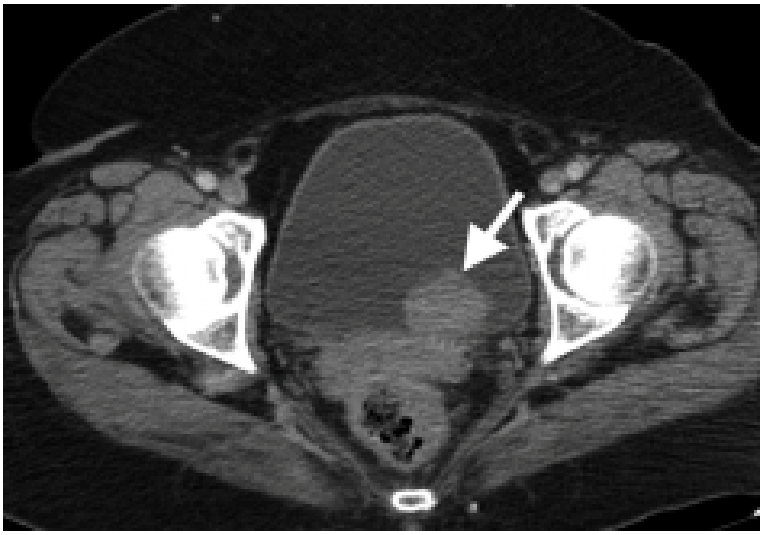

Figure 2. Bladder Tumour In CT Scan

There are a few theories explaining why breast cancers metastasize to the bladder: 1) the tumour emboli reach the urinary bladder by hematogenous route (3); 2) transcoelomic or retroperitoneal or dissemination via the lymphatic circulation (4); 3) breast carcinoma patients with lymph nodes, peritoneal and liver involvement have a higher risk of bladder metastasis; 4) immunosuppression due to steroid therapy causing bladder metastases (5). In our case, our patient had extensive bilateral breast carcinoma, with liver and peritoneal metastases, which most possibly resulted in bladder involvement as well.

Although bladder metastases are rare, any breast carcinoma patient with urinary symptoms such as gross or microscopic hematuria, frequency, incomplete voiding, or any renal impairment should warrant an ultrasound imaging (6) of the genitourinary system or cystoscopy examination. Immunochemistry staining such as cytokeratin, CK-7, CK-20, and CK-18 is useful in the recognition of epithelial differentiation for breast carcinoma metastases. Specific markers such as estrogen and progestrogen receptors are useful in identifying breast metastases (7). Unfortunately, our patient's ER/PR status was negative, therefore no hormonal markers could be tested for the bladder tumour.

To date, no definitive treatment guideline has been proposed for a case of breast carcinoma

with bladder metastases. This is because most patients with bladder metastases are associated with other extensive distant organ metastases. The response of hormonal treatment, systemic chemotherapy, transurethral resection of bladder tumour, or even radiotherapy is still unknown in view most of these cases have been reported from post-mortem reviews (8). Nevertheless, an isolated case report showed a patient diagnosed with breast carcinoma and bladder metastases having stable disease for 22 months after commencing treatment with Tamoxifen (9). Poulakis also reported a patient with breast carcinoma with bladder metastases still surviving 5 years after chemotherapy and hormonal treatment (10). But generally, survival after the onset of distant metastases is relatively short, which was seen in our patient. The presence of triple negative receptors also carries a poorer prognosis.

Conclusion

Primary breast cancer with bladder metastases carries a grave prognosis for a patient. Apart from attempting to cure and control the disease spread, good family counseling with best supportive palliative care might be the best treatment option for most of these patients and their families.

Conflict Of Interest

All authors declare no conflict of interest of any kind.

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