Case Report

URETERIC OBSTRUCTION SECONDARY TO METASTATIC BREAST CARCINOMA

Kalpesh Jani[1]

ABSTRACT

Ureteric obstruction presenting as hydronephrosis and hydroureter is a rare manifestation of metastatic breast cancer. Obstruction may be due to retroperitoneal fibrosis, retroperitoneal metastases or ureteric metastases. Apart from carcinoma of the breast, gastric cancer and renal cell carcinoma can also cause similar manifestation. The case report of a 75-year old female is described who presented with left moderate hydronephrosis and hydroureter and right mild hydronephrosis which was found to be due to metastatic invasive duct cancer of the breast. This is the first report of metastatic ureteric obstruction secondary to breast cancer managed successfully by anti-estrogenic therapy.

KEY WORDS: Metastatic breast cancer, Hydroureter, Hydronephrosis, Retroperitoneal fibrosis.

Ethical Approval: Permission from the Hospital Ethics Committee was obtained.

Pak J Med Sci April - June 2006 Vol. 22 No. 2 197 - 199

INTRODUCTION

One of the rarer manifestation of breast cancer is ureteric obstruction. This can be secondary to metastasis in the retroperitoneum or ureters or it can be due to periureteric retroperitoneal fibrosis secondary to breast carcinoma.[1-4] A case report is presented of a seventy-five year old female presenting with right mild hydronephrosis and left moderate hydonephrosis and hydroureter along with a hypoechoic calcified lesion in the region of the left lower ureter who on further examination was revealed to be suffering from carcinoma of the right breast.

1. Dr. Kalpesh Jani M.Sc., DNBS, MNAMS
Manjalpur Hospital,
Baroda, India.

Correspondence:

Dr. Kalpesh Jani,
102, Abhishek House,
Opp. Tulsidham Apartment,
Manjalpur, Baroda-390 011,
INDIA.
E-mail: kvjani@gmail.com

* Received for Publication: May 26, 2005

Accepted: December 1, 2005

CASE REPORT

UT, a 75-year old female, complained of recurrent abdominal colic since the last three months. She underwent a ultrasonographic examination of the abdomen which suggested ureteric obstruction. Meanwhile, a lump was noticed in the right breast of which the patient was totally unaware.

Examination: There was a 3.5cm. x4cm. lump in the upper and outer quadrant of the right breast which was hard, non-tender and fixed to the underlying muscle. Clinically, a single, hard lymph node 1cmx1.5cm in size, belonging to the central group of axillary lymph nodes was palpable. There were no other lymph nodes palpable. Examination of the abdomen did not reveal any abnormality.

Management: The patient was investigated for her urological problem by her local doctor. Her urinalysis revealed presence of plenty of WBCs. Ultrasound examinations revealed mild right hydronephrosis and moderate left hydronephrosis and hydroureter along with a hypoechoic lesion in the region of the terminal portion of the left ureter. An IVP suggested that there was involvement of the left ureteric orifice in the

bladder. Urine was examined for acid-fast bacilli and cytological examination was done for malignant cells but both the reports were nil. At this stage the breast lump was discovered and the patient consulted the author. A fine needle aspiration biopsy as well as a mammography were done, both suggestive of carcinoma of the breast. An excision biopsy of the lump confirmed the diagnosis of invasive duct carcinoma of the breast. Chest X-ray and USG liver were normal. Routine blood investigations and ECG were within normal parameters.

Operative intervention: A cystoscopy and ureteroscopy were performed and multiple cystoscopic deep biopsies were taken from the area of stricture. Histopathology revealed the presence of metastatic adenocarcinoma of breast with changes of chronic inflammation and fibrosis. A ureteric stent was placed across the stricture on the left side. Thereafter, Patey's modified radical mastectomy with axillary clearance was carried out using a horizontal elliptical incision.

Post-Operative Course: A histopathological examination of the specimen showed invasive duct carcinoma of no specific type, microscopic grade II with four lymph nodes being positive for metastasis. The stage was T2N2M1. Immunohistochemistry revealed ER - 80% Positive, PR - Negative and C-erb2 (HER2) - Positive. A bone scan using 99mTc MDP showed increased uptake and hence skeletal metastases in the right 7th rib and T11 and L4 vertebrae. She was administered hormonal therapy in the form of letrozole 2.5mg. Once a day which she is continuing till date.

A repeat bone-scan was done after a year, which was normal. She has been followed up over the last three years with yearly bone-scan and half-yearly ultrasonographies but has remained free of signs of recurrence. Her ureteric stent was changed every four to six monthly for three years. Prior to each replacement, an IVP was done with the guidewire insitu and the stent was placed as the IVP showed the presence of obstruction. It was finally removed after three years when the IVP showed resolution of the obstruction with absence of hydronephrosis and hydroureter on both sides and free flow of dye into the bladder.

DISCUSSION

Ureteric obstruction secondary to breast cancer is an unusual presentation of the disease. Carloss H. et al.[1] described five patients with retroperitoneal fibrosis secondary to breast cancer. However, the mean duration from the initial diagnosis to onset of symptoms was greater than ten years. Hydronephrosis and ureteric obstruction as the first manifestation of primary metastatic breast cancer is a very rare presentation.[3,5] In our case, biopsies from the obstucting lesion in the ureter were suggestive of fibrosis alongwith metastasis. Ureteric obstuction due to retroperitoneal metastases of breast cancer has also been described.[2,3] For ureteric metastases from breast cancer, radiation therapy has been recommended.[4] In our case, since the patient responded well to anti-estrogenic therapy as evidences by regression of bony metastases, radiotherapy was deferred. To the best of our knowledge, this is the first case of ureteric obstruction secondary to metastatic breast cancer responding completely to anti-estrogen treatment. Early recognition and early treatment of ureteric metastases have been stressed. Apart from breast cancer, other malignancies that are known to cause benign retroperitoneal fibrosis and ureteric obstruction include gastric carcinoma and renal cell carcinoma.[6,7]

CONCLUSION

Ureteric obstruction secondary to metastatic breast cancer is rare, but known. The management would be palliative for the ureteric obstuction and definitive for the breast cancer. One needs to keep this condition in mind, when a patient presents primarily with hydronephrosis and hydroureter, without any breast complaints.

REFERENCES

1. Carloss H, Saab G. Breast cancer and retroperitoneal metastasis. South Med J 1980; 73(12): 1570-1.
2. Feun LG, Drelichman A, Singhakowinta A, Vaitkevicius VK. Ureteric obstruction secondary to metastatic breast carcinoma. Cancer 1979; 44(3): 1164-71.
3. Soto V J, Flores OJ, Gutierrez SJA, Flores GJ. Nephritic colic caused by periureteric fibrosis resulting from metastasis from lobular carcinoma of the breast. Arch Esp Urol 2001; 54(2): 180-3.
4. Chu FC, Solis M, Grabstald H. Radiation therapy of ureteric metastases from breast cancer. Clin Bull 1977; 7(3): 105-8.
5. Kuhn W, Loos W, Graeff H. Hydronephrosis as the first manifestation of primary metastatic breast cancer. Geburtshilfe Frauenheilkd 1994; 54(5): 308-10.
6. Usher SM, Brendler H, Ciavarra VA. Retroperitoneal fibrosis secondary to metastatic neoplasm. Urology 1977; 9(2): 191-4.
7. Boszormenyi-Nagy G, Varga A, Turzo C. Ureteric obstruction caused by retroperitoneal metastasis of gastric carcinoma. Prog Urol 1995; 5(6): 965-7.