Metastatic Breast Cancer to the Bladder:
A Case Report

T. SCHNEIDAU, N. STROUMBAKIS, M. CHOUDHURY,
M. ESHGI, C. MALLOUH
Department of Urology, New York Medical College, Valhalla, New York, USA

(Accepted December 28, 1994)

The authors describe a rarely occurring case of extensive infiltration of the bladder wall by primary metastatic adenocarcinoma originating from breast cancer, and give a review of the pertaining literature.

Introduction

Breast cancer is second only to lung cancer as a cause of death from cancer among women in the United States. There were approximately 150,000 new cases of breast cancer and about 44,000 deaths from this disease in the United States in 1991 [1]. Approximately 45% of new cases will have metastatic spread, most commonly to the axillary lymph nodes, also to the lungs, liver and bone, and less commonly to the brain, thyroid, and heart. Over the past 40 years, bladder involvement in metastatic breast carcinoma has been sporadically reported. We describe one additional case along with a review of the literature.

Case report

A 54-year-old black female who underwent a right breast lumpectomy with axillary node dissection in 1990 for stage T2-N1M0 poorly differentiated adenocarcinoma with subsequent radiation therapy and 6 cycles of cyclophosphamide, methotrexate, and 5-fluorouracil presented to the urology service with mild left flank pain, dysuria, and intermittent painless gross haematuria. Sonography and CT scan revealed mild bilateral hydronephrosis without visceral metastases or adenopathy. She also received brain irradiation and intrathecal chemotherapy for carcinomatous meningitis subsequent to a spinal tap positive for malignant cells prior to presenting to the urology service, two years after diagnosis of breast cancer.

Physical examination was significant for mild left CVA tenderness and bladder fixation on bimanual examination. Significant laboratory values included a creatinine of 4.9 mg%, a haematocrit of 22.3 with normal coagulation factors, normal alkaline phosphatase, and normal platelets. Cytology was posi-
Fig. 1a. Intact bladder mucosa with diffuse submucosal tumour infiltration

Fig. 1b. Higher magnification of Fig. 1a showing large polygonal cells with hyperchromatic pleomorphic nuclei and prominent nucleoli

tive for adenocarcinoma consistent with breast primary. Cystoscopy revealed diffuse bullous oedema at the bladder base and posterolateral walls. There were no areas of frank bleeding amenable to fulguration. The ureteral orifices were not visualized. Biopsies showed extensive infiltration of bladder wall by metastatic poorly differentiated adenocarcinoma, compatible with primary origin in the breast (Figs 1a, 1b). Diagnostic cystoscopy was the only urologic intervention necessary upon G.U. presentation.