BILATERAL SIMULTANEOUS URETERAL TUMORS

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ABSTRACT — A patient with bilateral, simultaneous ureteral tumors is described. A brief comment on therapeutic techniques utilized in previous cases is presented.

Ureteral tumors are not a common occurrence in clinical practice. Simultaneous bilateral ureteral tumors are very unusual and raise interesting therapeutic dilemmas. We describe a patient with simultaneous, bilateral ureteral tumors.

Case Report

A sixty-seven-year-old white woman was referred to the urology service at the University of Michigan with a several-month history of recurrent urinary tract infections. There was no history of gross hematuria or exposure to known urinary carcinogens. An excretory urogram demonstrated bilateral filling ureteral defects suggestive of ureteral tumors (Fig. 1). The patient was admitted to the hospital for further evaluation. Physical examination revealed marked obesity but no other abnormalities. Complete blood count showed hematocrit 40, hemoglobin 14 Gm./100 ml., and white blood cells 5,700 per mm^3. Electrolytes in mEq/L. were sodium 138, potassium 4.8, chloride 104, bicarbonate 30. Blood urea nitrogen was 21 mg. and serum creatinine 1.3 mg./100 ml. Liver function tests were within normal limits. Chest roentgenogram was normal, and electrocardiogram demonstrated changes consistent with an old inferior wall myocardial infarction of indeterminate age.

Cystoscopy was performed, and a small papillary tumor was found on the right trigone. Bilateral retrograde pyelograms confirmed the ureteral filling defects. Ureteral washings and brushings were obtained and returned no evidence of neoplasm. Bone scan, selected bone films, and pedal lymphangiography did not demonstrate metastatic disease.

The patient underwent a transurethral resection of bladder tumor and left nephroureterectomy with excision of bladder cuff. The nephroureterectomy was done through a flank incision and separate Gibson incision with opening of the bladder. Three weeks later a right distal ureterectomy with ureteroneocystostomy was done through an oblique lower abdominal incision with retroperitoneal exposure. A ureterocutaneous fistula developed from the ureteroneocystostomy; consequently, three weeks after this procedure it was necessary to explore this area, place a Silastic stent through the anastomosis, and close the leak with several sutures. All drainage stopped, and the patient was discharged from the hospital seventy-six days after her first operation.

Pathology report was papillary transitional cell carcinoma in the bladder, left ureter, and right ureter. No invasion was present in any of these areas. Follow-up examination four months after discharge did not demonstrate metastatic disease or bladder tumor recurrence.

Comment

Although transitional cell carcinoma is considered a field change disease of the transitional epithelium, simultaneous, bilateral ureteral

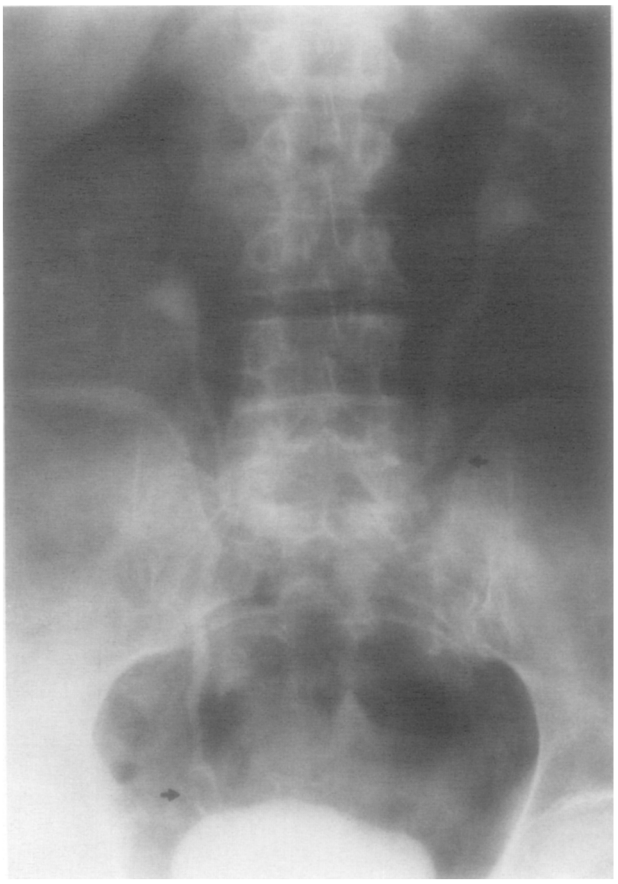

FIGURE 1. *Excretory urogram with arrows indicating bilateral ureteral filling defects.*

tumors have been reported rarely. In 1931 Chauvin and Romieu[1] reported 2 personal cases and made mention of a third. Ratliff, Baum, and Butler[2] from our center, described the first detailed contemporary case. Since that time 13 additional cases have appeared in the English literature.[3-13]

Because of the need to conserve renal function, these patients have been treated conservatively. Therapy must be individualized according to the location and extent of tumor. Operative procedures have ranged from fulguration of tumor protruding from ureteral orifices[1] to extensive ureteral resection with autotransplantation.[12] Six patients, including our own, were treated with nephroureterectomy on one side and conservative surgical procedure on the other.[2,3,5,9,10] Five patients had conservative procedures bilaterally.[6,7,10,13] Two patients had bilateral distal ureterectomies with diversion; in 1 case with cutaneous ureterostomies[8] and in the other with cutaneous ureteroileostomy.[11] One patient underwent bilateral distal ureterectomies with interposition of an ileal segment between the proximal ureters and the bladder.[4]

We believe that both kidneys should be preserved when possible. In our patient, the location and extent of the left ureteral tumor made segmental resection or excision with ureteroneocystostomy impossible. We did not believe that her general medical condition was such that ureteral replacement with ileum was warranted, and the alternatives of a permanent left nephrostomy or cutaneous ureterostomy were not attractive. Autotransplantation of the left kidney was a theoretical option not seriously considered in this case.

The presence of a bladder tumor in our patient, and in previous reports,[8,10,12,13] demonstrates again that regular surveillance of the bladder must not be forgotten in patients with ureteral tumors.

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