Synchronous Contra Lateral Transitional Cell Carcinoma (TCC) of the Kidney and Bladder

Razzaghi MR[1], Mohammadhosseini M[1], Rezaei A1, Javanmard B1, Mazloomfard MM[1]

Abstract

Synchronous upper urinary tract tumor and superficial bladder tumor are uncommon. This is a report of a 62- year- old man presented with episode of painless gross hematuria and flank pain. We worked him up and found a left renal mass and bladder lesion. He underwent nephrectomy and TUR-BT, and the pathology report of both showed a high grade urothelial transitional cell carcinoma. The patient was followed by surveillance protocol for ureter stump. Our report included an uncommon case of high grade synchronous upper urinary tract and bladder transitional cell carcinoma.

Keywords: transitional cell carcinoma, synchronous, bladder, urinary tract

Medical Laser Application research center, Shohada Tajrish Hospital, Shahid Beheshti University (MC)

Corresponding Author:
Mohammad Reza Razzaghi MD
Tel:22718001-9
Email:rezarazaghi@yahoo.com

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Introduction

Upper tract transitional cell carcinoma is a relatively rare tumor [1]. Synchronous upper urinary tract tumor (UUTT) and superficial bladder tumor are uncommon but 46% of the UUTT at the time of diagnosis are invasive [3]. This is a report on an uncommon case of synchronous UUTT and bladder tumor.

Case report

Our case was a 62 -year-old man presented with episode of painless gross hematuria and flank pain since one month before admission. The patient's appetite decreased and he lost 10kg during last 2 months. He was a heavy smoker (fifty-pack years) and also, he used opium. His medical and family history was non-contributory. He referred to our hospital, and some work up was performed for him.

On the physical examination, he had a palpable mass in the left upper quadrant, (estimated 10×15$^{cm)}$; the mass was firm and non-moveable. Other examination results were normal.

Laboratory evaluation revealed a mild anemia. Electrolytes, coagulation parameters, PSA (Prostate Specific antigen), and liver function test were within the normal range. Ultra-sonography study suggested a large and heterogen mass in the left upper quadrant with abnormal borders like a nephromegaly with size of 150×76^{mm}. There was one mass with a size of 47×49^{mm} in the right lateral wall of bladder.

Cystology from bladder washing was normal. CT scanning of the abdomen and pelvis revealed a large mass in the left kidney with hypodense area in the mass showing necrosis. There was a severe hydronephrosis and loss of parenchyma in the left kidney without any secretion. The right kidney was normal. The bladder contained a mass with isodense heterogenicity, showing a tumor or clot (figure 1). The whole body scan with Tc-99 was negative for skeletal metastasis.

In cystoscopy, we observed a large mass with papillary appearance in the right side of bladder. The patient underwent a left radical nephrectomy. Histologic examination of specimen revealed a high grade and poor differentiated papillary urothelial carcinoma. Tumor was confined within the renal capsule. The pyelocaliceal system was involved; no invasion of the renal vein was identified. All surgical margins were free from tumors. Adrenal gland was unremarkable. All 19 dissected lymph nodes were free from tumors.

We discussed the potential therapeutic and surveillance options with the patient due to the urethelial carcinoma in his pathology report. The options included re-opration with formal completion of ureterectomy and then TUR of bladder tumor or surveillance with cystoscopy; right ureterogram; and ureterscopy of ureteral stump besides TUR of bladder tumor. The patient chose the second option and then the TUR-BT was performed for him 20 days after the last surgery. The pathology of bladder mass showed a low grade (at least stage A) papillary urothelial cell carcinoma with absence of muscle coat. Intravesical chemotherapy with mitomycin was performed. The patient was followed by surveillance protocol.

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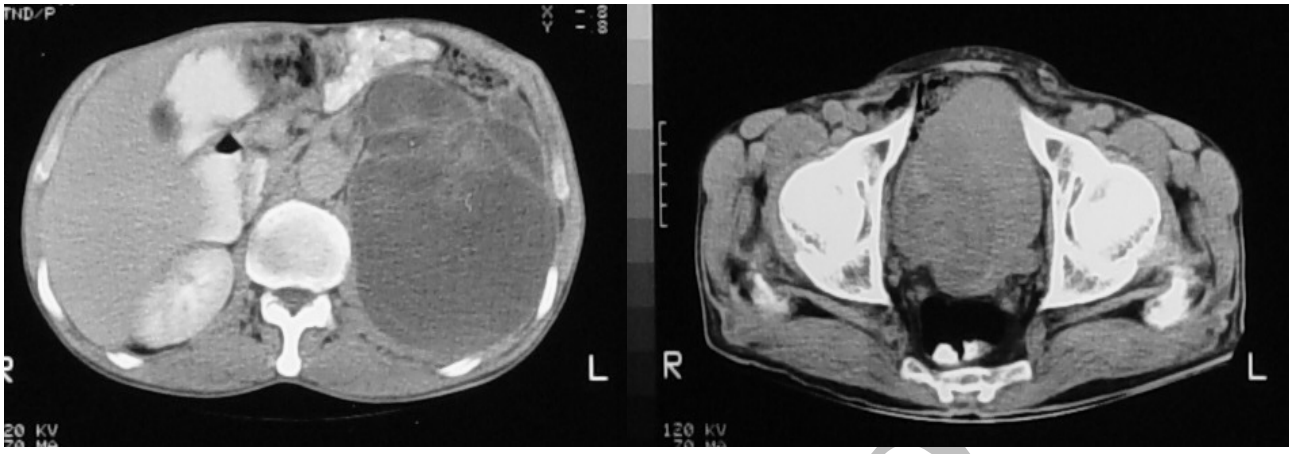

***Figure1**: CT scan revealed synchronous left renal mass and right bladder mass*

Discussion

Upper tract transitional cell carcinoma is a relatively rare tumor [1]. The demographics of patients with TCC are a higher predilection for men (2:1).The usual mode of presentation is with hematuria (90%), flank pain (19%) or a palpable mass (14%). The mean age of presentation is 65 years. These tumors, interestingly, occur with a 3-fold higher frequency in the left kidney (2). Overall, 5-year- disease specific survival is in the range of 16.5% to 95% depending on stage [1].

Only a 7% recurrence rate in the ipsilateral ureteral stump is noted in patients with a solitary grade 1 tumor. This incidence increases to nearly 30% with grade 2 tumors. Higher grades and the presence of multifocality are associated with even higher rates of ipsilateral ureteral recurrence [2].

Palou et al reviewed 1529 patients with superficial bladder carcinoma who underwent initial examination of upper urinary tract with IVP. Synchronous UUTT and superficial bladder tumor are uncommon but 46% invasive. Patients with tumor in the trigone are at almost 6-fold higher risk for synchronous tumor in the upper urinary treat [3].

Mullerad et al reviewed 129 patients and concluded that a history of bladder tumor (invasive or superficial) has an adverse effect on the prognosis of patients diagnosed with upper tract trasitional cell carcinoma independent of primary tumor stage [1].

Yousem et al reviewed 645 patients. In that study synchronous TCC was found in 2.3% of the patients with bladder TCC, 39% of those with ureteral TCC, and 24% of those with renal TCC [4].

In summary, synchronous upper tract transitional all carcinoma and bladder tumor are uncommon but are occasionally invasive. We reported an uncommon case of invasive synchronous upper tract transitional all carcinoma and bladder tumor.

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