

# *Simultaneous renal cell carcinoma of the kidney and transitional cell carcinoma of the bladder*

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*Herein we report a rare combination of two urological tumors simultaneously: renal cell carcinoma of the kidney and transitional cell carcinoma of the bladder. A 67 year old male presented with hematuria. He was*

*diagnosed with left renal cell carcinoma and transitional cell carcinoma of the bladder. Subsequently this patient underwent left nephrectomy (palliative) to control the pain and transurethral resection of bladder tumor. The clinical picture, radiographic and histological finding are presented, as well as the treatment offered.*

**Key Words:** renal cell carcinoma, transitional cell carcinoma, bladder

### Case report

A 67 year old man presented with painless intermittent gross hematuria for one year duration. He had occasional left flank pain. There was no aggravating or alleviating factors and no other associated symptoms such as dysuria, frequency,

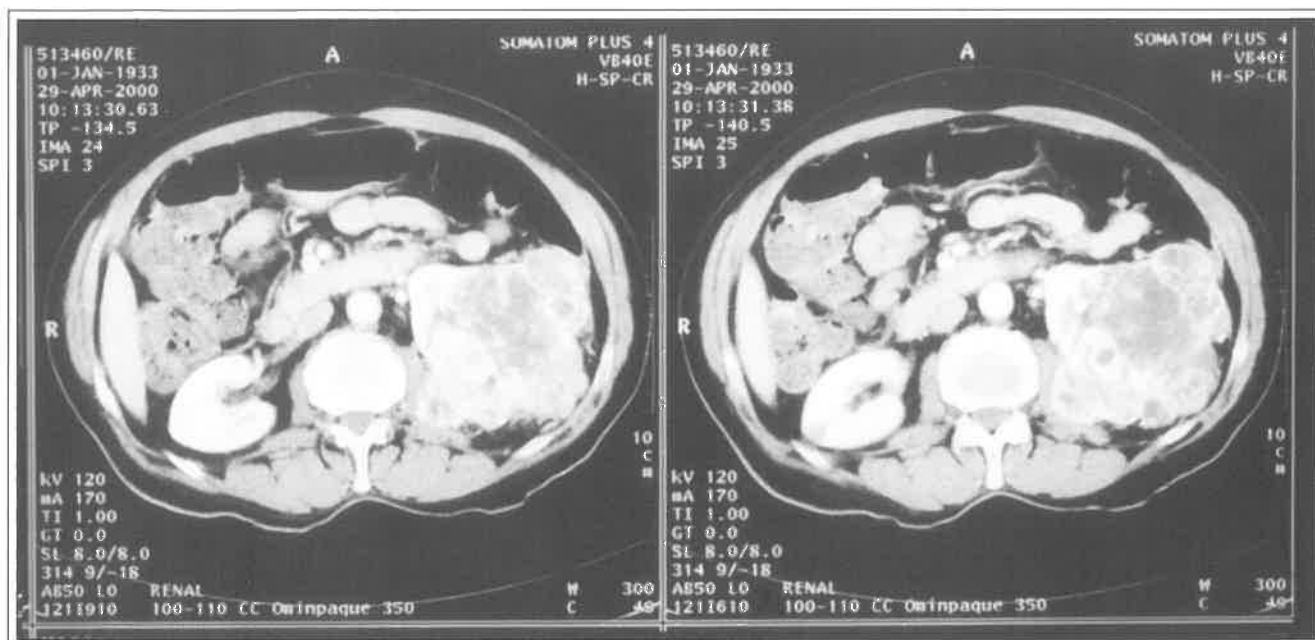
urgency, retention or incontinence. The laboratory investigations done consisted of urine analysis and culture, complete blood count, renal function tests and serum electrolytes. The investigations were all within normal range except for the haemoglobin level which was low. Radiographic evaluation included plain abdominal X-ray, Excretory Urogram and CT scan.

Excretory Urogram showed a mass in the left kidney and a filling defect in the bladder. The CT scans confirmed the presence of a left renal mass which was 8 cm in maximum diameter associated with areas of focal haemorrhage and necrosis with invasion of the perinephric fat and renal vein

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**Figure 1.** CT scans showing an extensive left renal mass.

suggesting renal cell carcinoma T3b (Figure 1) along with a lesion in the bladder which represents transitional cell carcinoma (Figure 2). There were multiple cannon-ball metastatic lesions seen in the lung.

The patient underwent transurethral resection of the bladder tumor to control the hematuria followed by left nephrectomy a week later (palliative to control the pain). Histology of the left kidney revealed 8 cm

renal cell carcinoma of predominantly clear cell type; grade III with necrosis, haemorrhage and cystic changes. There was focal infiltration in perinephric fat and invasion of the renal vein. The distal end of the ureter was clear of the tumor. Histology of the curetted bladder revealed pTa, Grade II papillary transitional cell carcinoma. Further treatment with chemotherapy and immunotherapy was offered and subsequently refused by the patient. The patient died of metastatic disease 3 months later.

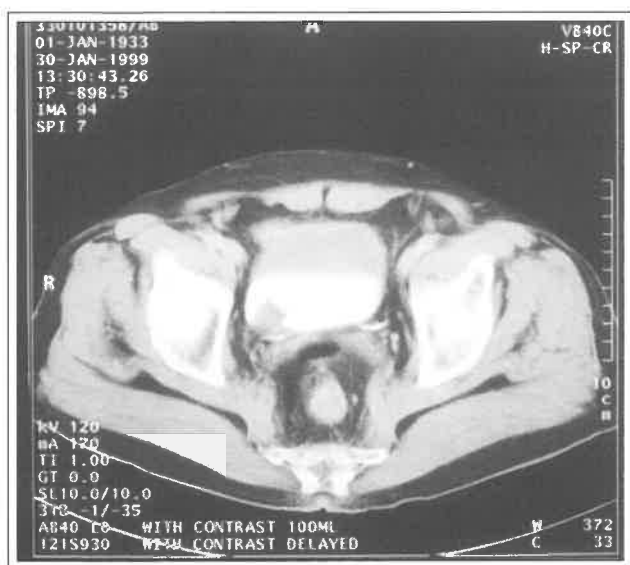
### Comment

The discovery of two unrelated primary carcinomas in the urinary tract is rare. It is not uncommon to find a patient with a urothelial carcinoma developing a bladder tumor. The risk of developing a bladder carcinoma after a single upper tract carcinoma is about 30%-50%.<sup>1</sup> Histologically, the tumors will be consistent.

A review of literature about simultaneous development of renal cell carcinoma in the kidney and transitional cell carcinoma of the bladder, yielded only 20 cases reported in Japan,<sup>2</sup> two cases in Spain<sup>3,4</sup> and a single case reported in Bulgaria.<sup>5</sup>

Suzuki et al reported four cases of ureteral stump transitional cell carcinoma after nephrectomy for renal cell carcinoma.<sup>6</sup>

Hart et al conducted a retrospective analysis of 23 cases over 71 years of transitional cell carcinoma and renal cell carcinoma in the same kidney.<sup>7</sup> He found



**Figure 2.** CT scan showing TCC of the bladder.

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that 34% had bladder neoplasms. Onishi et al studied the clinical characteristics of double cancer associated with renal cell carcinoma and found that gastric cancer was commonly associated with renal cell carcinoma (36.8%).<sup>8</sup> Only 5.3% had renal pelvis carcinoma which is low.

In Bahrain, no cases have been reported of simultaneous renal cell carcinoma in the renal parenchyma and transitional cell carcinoma of the bladder. □

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