

"The creeping tumor:" An unusual presentation of upper urinary tract malignancy

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ABSTRACT

Upper urinary tract urothelial malignancy accounts for 5-10% of urothelial carcinomas. Synchronous bladder carcinoma occurs in 2-4% of patients with upper urinary tract tumors. Urothelial malignancy involving the entire upper urinary tract is an extremely rare entity. Most upper urinary tract malignancies are transitional cell carcinomas (TCC), of which the sarcomatoid variant is very rare. These tumors pose a challenge to the radiologist. We herein report a case of TCC involving the entire collecting system of the left kidney, extending down along the ureter and projecting as a mass in the bladder.

Key words: Creeping tumor, sarcomatoid variant, transitional cell carcinoma

INTRODUCTION

Transitional cell carcinomas (TCC) spread along the urothelial cellular lining. However, presentation of TCC involving the entire upper urinary tract is extremely rare, and, to the best of our knowledge, this is the first case reported.^[1] Our patient had the sarcomatoid variant of TCC, a rare entity.^[2]

CASE REPORT

A 42-year-old male was admitted with history of painless hematuria and left loin pain for 4 months. Clinical examination revealed an ill-defined hard mass palpable in the left lumbar region. Radiological studies revealed a heterogeneous mass lesion measuring 15 cm × 10 cm in the collecting system of the left kidney with hydronephrosis and perinephric urinoma. Infiltration into the left renal cortex with extension of the lesion into the left pararenal space

and left latissimus dorsi muscles were seen. The mass extended into the left ureter up to the vesico-ureteric junction (VUJ) and into the bladder, presenting as an intravesical exophytic mass lesion. Extension of the lesion into the periureteric soft tissue was noted 8 cm above the VUJ [Figure 1]. Cystoscopy and biopsy from the bladder growth was performed which suggested -high grade TCC.

Neoadjuvant chemotherapy consisting of three cycles of Cisplatin/Gemcitabine was administered.^[3] Clinically and radiologically the mass decreased in size [Figure 2]. Open left nephroureterectomy with bladder cuff excision was carried out. Final histopathology revealed a sarcomatoid variant of TCC, pT4 N0 M0. The patient was administered adjuvant chemotherapy and is on follow up.



Figure 1: "The creeping tumour" – tumour extending from the left renal pelvis and whole of the left ureter and projecting into the bladder

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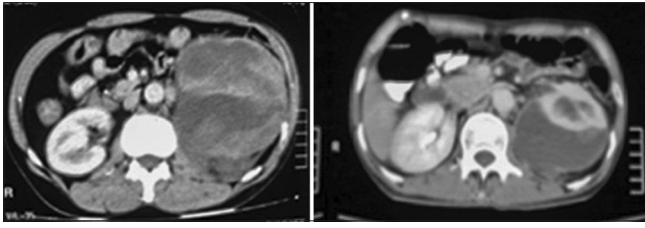


Figure 2: Response to neoadjuvant chemotherapy – tumor has considerably reduced in size in the left kidney (right side image) following a course of neoadjuvant chemotherapy

DISCUSSION

An upper urinary tract tumor can be defined as any neoplastic growth that affects the lining of the urinary tract from the calyces to the distal ureter. Unlike bladder urothelial tumors, they are relatively less common and may have a different prognosis. Unusual imaging features of urothelial carcinoma of the upper urinary tract can be challenging for any radiologist.^[4] For staging purposes, computed tomography or magnetic resonance imaging is most useful in determining the extent of invasion and metastasis. TCCs are invasive and

epithelial spread may occur in both antegrade and retrograde manner. Involvement of the entire upper urinary tract is rare.

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