



Crawling Tumour:” An Unusual Presentation of Upper Urinary Tract Tcc

KEYWORDS

Crawling tumor, Papillary urothelial carcinoma, Upper Tract transitional cell carcinoma

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ABSTRACT Urothelial malignancy involving the upper urinary tract is not an uncommon pathology and accounts for 5-10% of urothelial malignancies. Synchronous bladder carcinoma can occur in small number of patients (2-4%) with upper urinary tract tumors. Most upper urinary tract malignancies are transitional cell carcinomas (TCC) with renal pelvis being the most common location. However, urothelial malignancy involving the entire upper urinary tract is extremely rare. Hence, we report a case of TCC which involves the entire collecting system of right kidney and extends down along the ureter with involvement of right vesicoureteral junction.

Introduction

Transitional cell carcinomas (TCC) are well known to progress along the urothelial cellular lining. However, TCC involving the entire upper urinary tract from collecting system to vesico-ureteric junction (VUJ) is extremely rare, and to the best of our knowledge, this is the first case reported.

Case Report

A 57-year-old female was admitted with history of painless, insidious, hematuria since 4 days, with history of similar complaints on and off in past 3 months. Clinical examination revealed tenderness in the right lumbar region. Radiological evaluation with contrast enhanced CT KUB, revealed a heterogeneous mass lesion in the collecting system of the right kidney with hydronephrosis. The mass extended into the right ureter up to the vesico-ureteric junction (VUJ) (Fig. 1).

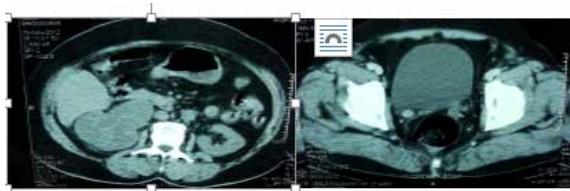


Fig. 1 – Contrast enhanced CT KUB showing a heterogeneous mass lesion in the collecting system of right kidney extending into the right ureter upto the vesico – ureteric junction.

On cystoscopy bulge was seen just above the right ureteric orifice, ureteroscopy was attempted but scope could not be negotiated. Hence, right open nephroureterectomy with bladder cuff excision was done (Fig. 2).



Fig. 2 - Post operative specimen showing multiple papillary projections involving the entire length of the ureter.

Post operative period was uneventful and patient was discharged on post operative day 5. Histopathology examination revealed Intermediate grade invasive papillary urothelial carcinoma of ureter involving renal pelvis, medulla, cortex and cuff of urinary bladder. Patient is on follow up and no recurrence was noted.

Discussion

Neoplastic growths that involve the lining of the urinary tract anywhere from the calyces to the vesico ureteric junction are known as upper urinary tract tumor. The peak incidence of transitional cell tumors of upper tract is around the sixth and seventh decade of life and rarely occurs before the age of 40 (1). Males are affected three times more than females (1). The incidence of transitional cell carcinoma in the ureter is scarce compared with the renal pelvis with a ratio of 1:3(2). The risk factors associated with upper tract transitional cell carcinoma are cigarette smoking, occupational factors, analgesic abuse, coffee consumption, chronic infections and stones(3)1982, and with individually sex-, age- and race-matched neighborhood controls. The major risk factor identified for cancer of the renal pelvis and ureter was cigarette smoking. Subjects who smoked more than 25 years had a relative risk of 4.5 of developing these tumors, compared to nonsmokers (P less than 0.0001(4). In comparison to TCC of the bladder, urothe-

lial malignancies of the upper tract are relatively less common and have a different prognosis. The most common presenting symptom of these patients is microscopic or gross hematuria seen in 75% patients, followed by flank pain (30%)(1). For staging purposes and determining the extent of invasion and metastasis, computed tomography or magnetic resonance is the most useful imaging modality available. Urinary cytology has a minimal role in the diagnosis, with a sensitivity of less than 50% and a specificity of 90%(5) bladder cytology, upper tract biopsy/cytology and retrograde pyelography for the detection of recurrent upper tract transitional cell carcinoma compared to endoscopic findings.

MATERIALS AND METHODS: Patients with ureteroscopically treated upper tract transitional cell carcinoma were followed with surveillance every 3 to 6 months. Surveillance included urinalysis with dipstick and microscopic examination, bladder cytology, retrograde pyelography read by a urologist and radiologist, and ureteropyeloscopy with cytology and biopsy of suspicious areas. Not all results were available for all surveillance procedures. Measures of sensitivity and specificity for the aforementioned surveillance procedures were determined relative to endoscopic findings that were defined as the standard. Confidence intervals were also estimated. Initially, a generalized estimation equation approach was used to take into account the clustering of repeated testing within patients. The accuracy of each procedure was also calculated.

RESULTS: There were 23 patients with previously resected low grade upper tract transitional cell carcinoma who underwent a total of 88 surveillances in 30 months. A total of 56 of 88 (64%).

TCCs are well known to be invasive and epithelial spread can occur in both antegrade and retrograde manner. However, involvement of the entire upper urinary tract is very rare. Radical surgery in the form of nephroureterectomy with removal of bladder cuff has been considered the standard of care for upper tract transitional cell carcinoma because of the high incidence of multicentricity and recurrence in the distal ureteral stump(16-58%)(1). With the advancement in endourological technique, ureteroscopic and percutaneous techniques have been described using laser or electrosurgical techniques for the management of these tumors(6). Recurrence rates following minimally invasive surgery is high and is said to around 23-54%(1). Radiotherapy has a limited role and is only considered in the local control of high grade high stage tumors and has no added survival benefit (7). The role of chemotherapy is still under trial and is mainly indicated in node positive and metastatic disease. The overall survival rate at five years is around 65%(2).

Conclusion

Transitional cell carcinoma of the upper tract is a rare tumor which is known for its multicentricity and recurrence. Nephroureterectomy with excision of bladder cuff is the gold standard for the management of these tumors. All these patients need long term follow up with imaging.

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