

## Metachronous Renal Cell Carcinoma and Transitional Cell Carcinoma: A Diagnostic Dilemma

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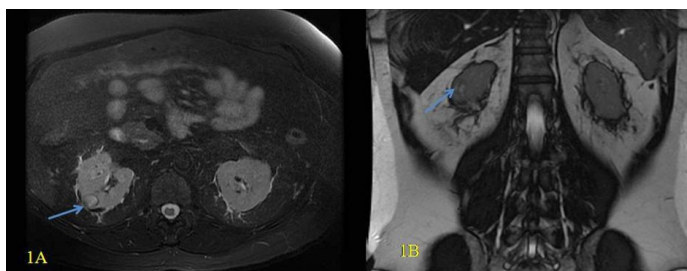
### Abstract

Development of second urological malignancy in known case of renal cell carcinoma is rarely reported. Second primary pathology should be suspected when presentation does match with symptoms presenting out of primary. We report a case of renal cell carcinoma in right kidney presenting with left renal invasive urothelial carcinoma on follow up.

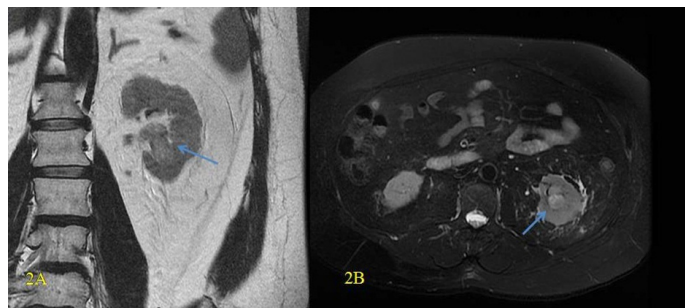
**Keywords:** Multiple Primary Malignancies; Renal Cell Carcinoma; Urothelial Carcinoma

### Case Report

55 year gentlemen, diabetic and hypertensive, presented with one episode painless gross hematuria, on evaluation with MRI was found to have right renal mass 19 x 14 mm in right kidney (Figure 1, A&B). He underwent right Robotic partial nephrectomy in November 2016. Histopathology was Clear Cell Conventional Renal Cell Carcinoma-Fuhrmann's Nuclear Grade II (Pathological stage pT1aNxMx with negative margins). He again presented with hematuria after 11 months. On evaluation with MRI he was found to have heterointense lesion seen filling the left lower pole calyx of left kidney measuring 3.4 x 1.17cm, suggestive of blood clot or hypovascular mass (Figure 2, A&B). On flexible ureteroscopy he was found to have left renal pelvis mass. In view of pelvic mass, he underwent left Robotic Nephroureterectomy in November 2017. Final histopathology was suggestive of high grade invasive urothelial carcinoma (Pathological stage pTNM: pT3 N0 Mx). He is doing well on 1 year follow up.



**Figure 1:** A & B: T2 heterointense, cortical based lesion measuring 19x14 mm in the upper third of right kidney.



**Figure 2:** A&B: Heterointense lesion without significant enhancement seen within the left lower pole renal calyx.

### Discussion

Development of second urological malignancy in known case of renal cell carcinoma is rarely reported [1-3]. Second malignancy may be synchronous with primary or may present after some time. TCC has been reported to occur in same kidney after partial nephrectomy or in ipsilateral ureter after radical nephrectomy [4-7]. On retrospective analysis of 458 patients undergoing radical or partial nephrectomy in last 10 years we found only one patient with both RCC and TCC. Our patient presented after 1 year of right partial nephrectomy with hematuria. Diagnostic dilemma included possibility of recurrence or development of metastasis in opposite kidney in view of known history of malignancy. Diagnostic evaluation suggested a second primary malignancy in other kidney. In view of location, radiological and ureteroscopic findings TCC was suspected and he underwent radical nephroureterectomy for the same.

## Conclusion

Our case signifies role of complete re-evaluation in known case of known primary malignancy. Second primary pathology should be suspected when presentation does match with symptoms presenting out of primary pathology.

## Declaration

Dr Abhishek Laddha prepared manuscript and was reviewed by all authors.

## Ethical approval and Consent

Amrita Institute of medical sciences. Informed consent taken from patient regarding publication of clinical document.

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