Urological Image

Thrombus Masquerading a Double J Ureteric Stent

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ABSTRACT

Renal cell carcinoma (RCC) is the most common renal parenchymal malignancy found in adults. When these tumors are located centrally in the kidney and do not enhance well on contrast imaging, they may be mistaken to be urothelial in origin, and the diagnosis is established on histopathology. We present an interesting case of RCC with an atypical vermiform thrombus projecting into the urinary bladder.

INTRODUCTION

Renal cell carcinoma (RCC) accounts for 2%–3% of all adult malignancies.[1] These tumors arise from the parenchyma and usually have an exophytic component, resulting in distortion of renal contour. However, central tumors with infiltration into the pelvicalyceal system may be mistaken as upper tract urothelial cancer (UTUC). In such entities, only histopathological examination reveals the nature of the disease, whereas the radiological imaging remains equivocal.[2] We describe a case with a tumor thrombus mimicking a double J (DJ) ureteric stent.

CASE REPORT

A 55-year-old gentleman presented to us with a 1-year history of intermittent painful hematuria. Magnetic resonance imaging of the abdomen revealed a 6 cm × 4 cm hypo-enhancing mass in the left renal pelvis with the retained reniform shape of the kidney [Figure 1a]. After metastatic workup, laparoscopic left RNU and LND were planned with a diagnosis of UTUC. During cystoscopy a soft and compressible DJ stent-like structure was seen peeping out from the left ureteric orifice [Figure 1b]. Then the patient's documents were rechecked for a possible history of ureteric stenting but none was found. However, on grasping [Figure 1c] and pulling the structure, it got detached with the proximal end receding into the upper ureter. Ureteroscopy revealed it to be extending proximally, with a normal surrounding ureteric mucosa [Figure 1d].

Laparoscopic RNU was performed along with ipsilateral LND up to the common iliac bifurcation. The histopathology revealed clear cell carcinoma with rhabdoid features extending up to proximal ureter, and the lymph nodes were found to be reactive (pT3aN0). No recurrence was seen at 6 months.

DISCUSSION

Although the presence of a vermiform thrombus is a common finding[3] in patients of RCC, longstanding clots may become organized and de-pigmented, giving rise to a white-colored tubular structure masquerading as a DJ stent. In the specimen of RNU, it was also seen to extend distally. This indicates that even in the absence of recent hematuria, we may find a clot in the upper tract, albeit organized and necrosed. As another explanation, it could be due to necrosis of the vasculature deprived distal ureteric extension of the tumor infiltrating into the pelvicalyceal system.[4] However, in the current TNM staging system,[5] such intraluminal

Access this article online	
Quick Response Code:	Website: www.indianjurol.com
	DOI: 10.4103/iju.iju_302_21

Received: 13.07.2021, **Revised:** 30.07.2021,

Accepted: 10.09.2021, **Published:** 01.10.2021

Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

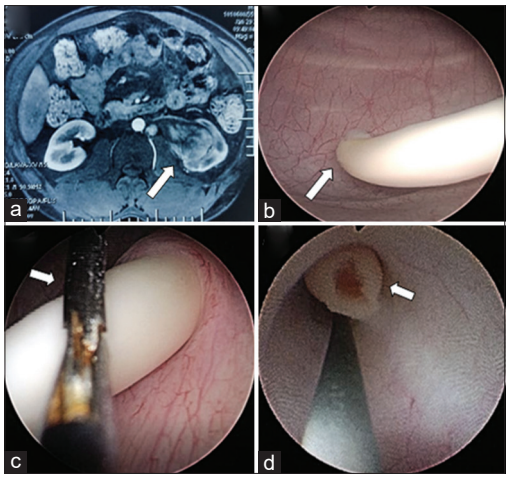

Figure 1: (a) Magnetic resonance imaging scan with gadolinium contrast showing a hypo-enhancing lesion in the left renal pelvis with preserved renal contour (white arrow). (b) A tubular tissue projecting from the left ureteric orifice resembling a double J stent (white arrow). (c) The stent removal forceps were used to extract the clot (white arrow). (d) Ureteroscopy showing the proximal extension of the clot (white arrow) with normal surrounding ureteral mucosa

tumor extension down into the ureter with or without wall infiltration is not described, warranting more distal surgical extent along with preoperative cystoscopy even in RCCs. However, to the best of our knowledge, RCC with an atypical clot masquerading as a DJ ureteric stent is a unique presentation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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How to cite this article: Misra A, Das MK, Mandal S. Thrombus Masquerading a Double J Ureteric Stent. Indian J Urol 2021;37:361-2.