



Lower Ureteric Calculus with ancillary Inverted Urothelial Papilloma – A Rare incidental Intra op Finding

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Introduction

In the modern era, endourological procedures are the preferred treatment modalities for the management of urinary lithiasis. Here we report a case of impacted lower ureteric calculus with ancillary Inverted Urothelial Papilloma of the lower ureteris an incidental finding. This space occupying lesion is encountered primarily in the nasal cavity and paranasal sinuses. It is an extremely rare urinary tract ailment. It is seen in order of frequency in the bladder, urethra, and ureter. In this case report, we will present the clinical scenario, an incidental intra-operative finding, diagnosis, therapy, and follow-up.

Case Report

A 50 year old female presented to us with the chief complaints of left flank pain since last 1 month with associated storage LUTS in the form of frequency and urgency with associated burning sensation during micturition. She had no history of smoking or any other addictions or trauma. Physical examination was normal and her laboratory results were unremarkable with serum creatinine being normal. Abdominal and pelvic computed tomography (CT) scan was done which showed a 9.2 mm, 1150 HU calculus in left distal ureter just proximal to ureteric orifice and mild hydronephrosis and hydroureter with non-

enhancing left ovarian cyst, while the right renal system was normal and bladder having no obvious findings.

X-ray kidney ureter bladder (KUB) confirmed the presence of a distal ureteric calculus on the left side with the delayed films of Computed Tomography revealing proximal dilatation of ureter with no passage of contrast beyond the calculus. (Figure 1a and 1b).

The patient was diagnosed as left lower ureteric calculus and was planned for Left URSL. Intraoperatively while cystoscopy there was a papillomatous growth arising from left ureteric orifice 2x 2 cm. (Fig. 2) Guidewire was passed under fluoroscopic guidance and Ureteroscopy was done, there was evidence of papillomatous growth arising from just inside the ureteric orifice medial wall with a thin stalk and a calculus just above the growth. Lower ureteric calculus was fragmented and cleared, with ureteroscopy showing no associated lesion/ pathology in proximal ureter, decision was taken to excise the growth from the base of stalk and biopsy was sent. Histopathology revealed endophytic trabeculation of the urothelial layer with downward growing ramifying thin and orderly cords and sheets arising from the overlying urothelium without any exophytic papillary component. The histological examination revealed urothelial papilloma. In the

post op period, in the post operative period, Urine Cytology was sent which came out to be negative for malignancy. The patient was discharged and asked to follow up. The follow-up plan included laboratory and urine tests, radiological

examinations at 3-month intervals, and 6 monthly cystoscopy all within the first 3 years, then once a year thereafter. Patient is currently in the first 3 months of follow up and is currently having no growth as on radiological investigation.

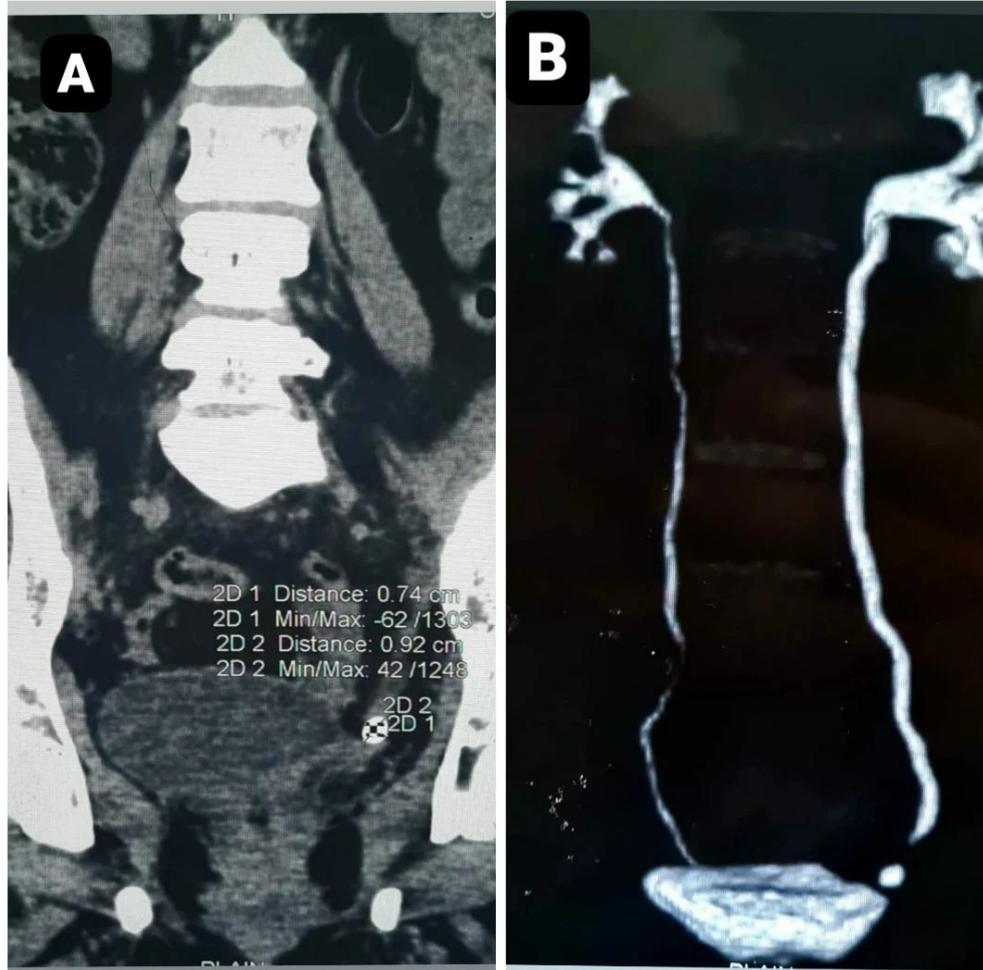


Fig. 1 Computed Tomography images (A) and (B) revealing lower ureteric calculus with proximal dilatation of ureter with no passage of contrast beyond the calculus in the delayed phase.

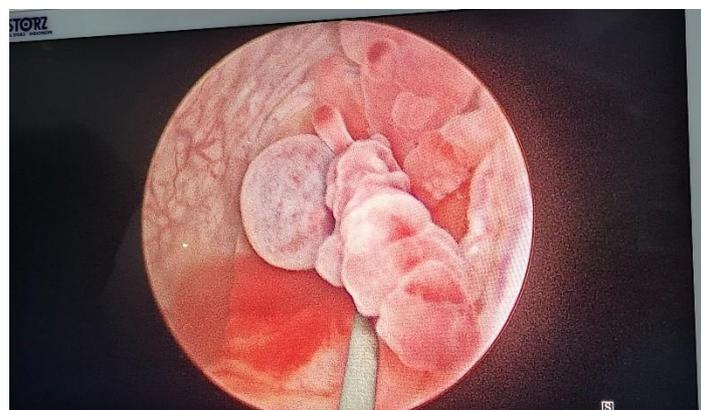


Fig 2 Intra op cystoscopic finding of papillomatous growth arising from the left Ureteric Orifice with stalk in the lower ureter

Discussion

Paschkis described bladder "adenoma-like tumours,"^[3] IUP is a rare tumor accounting for 1–2% of urothelial tumors. Adenourothelioma and Brunnian adenoma are alternatives terms for IUP.^[4]

The peak incidence is between the fifth and sixth decade of life, with a male-to-female ratio of 4:1 IUP mainly affects the bladder (90%), but it can occur in any location throughout the genito urinary tract.^[3] In our patient, the papilloma was the most frequent presenting symptoms are haematuria, macroscopic or microscopic, and renal colic. Irritative symptoms, as well as urinary tract obstruction, have also been reported as seen in the subject. In a high percentage of cases, however, tumours are asymptomatic and detected during unrelated clinical investigations.^[1] Our case presented with left flank pain and storage LUTS.

It is considered a non-malignant disorder and its potential for recurrence is minimal. However, it's crucial to diagnose a synchronous or metachronous transition cell malignancy at presentation or during the follow-up respectively, to determines the treatment and disease prognosis.^[1]

Urine cytology encompasses a minimal role in diagnosis despite its high specificity (98%), and its low sensitivity (34%) especially to low-grade lesions (12% for grade 1 tumour).^[5] Our patient within the post operative period had negative urine cytology.

The typical histologic pattern of the lesion includes an endophytic trabeculation of the urothelial layer with downward development up to the stoma lining with no exophytic papillary component. Generally speaking, IP may be a benign disorder, but in some specimens atypic features is also recognized, including the detection of prominent nuclei, atypical squamous characteristics, urothelial dysplasia and giant multinucleated cells. A lesion with atypia is of clinical importance because it's difficult to be distinguished from transitional cell carcinoma

(TCC) with inverted growth pattern, has high probability of recurrence and has been related to a previous, simultaneous or subsequent malignancy, thereby justifying a rigorous follow-up protocol.^[1] Our patient didn't had any atypia features on histopathology hence rigorous follow up wasn't required.

The medical diagnosis is also sometimes challenging and includes primarily the urothelial (transitional cell) carcinoma and barely the nephrogenic adenoma, the paraganglioma and therefore the carcinoid tumours.^[2] In our patient, the pathologic diagnosis of a typical IP and also the absence of TCC sites, justified a non-strict follow-up protocol with, as indicated by others, endoscopic examinations twice a year.

Conclusion

The presence of inverted IP should be considered in patients with lower ureter pathologies despite being rare entity, like impacted calculus when the diagnostic workup for malignancy is inconclusive. The association of calculus and the Inverted papilloma is subjected to discussion in view of less number of cases.

Complete tumor resection with a short-term follow-up seems to be a safer treatment option. as Establishing guidelines for this pathology, will be helpful for physicians and will be beneficial for patients with IUP.

As per our experience, Cystoscopy is an important treatment modality in the early postoperative period to detect incomplete resection of the tumor, and it should be considered as an optional form of treatment during long-term follow-up. Moreover, if or when there is any suspicion of the presence of a tumor, it is absolutely necessary to perform a diagnostic cystoscopy.

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