

CASE REPORT

RECURRENT VILLOUS ADENOMA OF URINARY BLADDER AND URETER: A CASE REPORT

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ABSTRACT: Villous adenoma of the urinary tract is uncommon. It occurs in the elderly patients with a predilection for the urachus, dome, and trigone of the urinary bladder; rare cases involve the ureters or urethra. We herein report a rare case of recurrent villous adenoma of urinary bladder and ureter. **CASE REPORT:** 49 yr male patient presented with history of passing mucous perurethrally for the past 4 months, associated with burning micturition, hesitancy, frequency. He underwent trans urethral resection of bladder tumor for two times and had recurrence involving the trigone, dome, left lateral wall, bladder neck, prostatic urethra and right ureteric stump. He underwent radical cystoprostatectomy with ileal conduit. Histopathological examination showed villous adenoma with moderate dysplasia. **CONCLUSION:** Recurrence of the original tumor or subsequent development of adenocarcinoma is rarely seen. In our case the tumor was highly recurrent with bladder outlet obstruction and was managed by ablative surgery. A through follow up of these patients is recommended.

INTRODUCTION: Villous adenoma of the urinary tract is uncommon. It occurs in the elderly patients with predilection for the urachus, dome, trigone and rarely involve the renal pelvis, ureters and urethra. Typical presenting features include hematuria, irritative voiding symptoms and mucoid discharge in urine. Several case reports and a number of studies detailing the pathologic features and prognosis of villous adenomas in the urethra, bladder and urachus have been published.^[1,2]

However, the histogenesis and malignant potential of these tumors remain controversial. Ureter involvement also very rare, to date only few case reports seen in literature showing ureteric involvement.^[3] We herein report a case of recurrent villous adenoma of urinary bladder and ureter which was managed by radical surgery.

CASE REPORT: 49 yr male patient presented with history of passing mucous per urethra for the past 6 months associated with hematuria, burning micturition, hesitancy and frequency. He underwent right nephrectomy 10 years back for calculous pyonephrosis. He underwent transurethral resection of tumor twice under spinal anesthesia and obturator block (Fig. 1). Three months after this patient presented with urinary retention due to mucus and recurrence. No associated co morbidities seen. Physical examination is unremarkable. Routine urine examination revealed only few pus cells and red blood cells. No growth is seen in urine culture and sensitivity. Urine cytology is also negative for malignancy. Mild elevation serum creatinine (1.5 mg%) is seen. Ultra sound showed right post nephrectomy status with mild hydro ureteronephrosis of left kidney with multifocal tumor of size 5 x 4cm seen in bladder. Contrast enhanced CT scan showed

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irregularly thickening posterolateral wall of the bladder with mass arising from left lateral wall, dome, prostatic urethra and right ureteric stump (Fig. 2). Screening of gastrointestinal tract with upper gastrointestinal endoscopy and colonoscopy were normal.

Finally we planned for radical cystoprostatectomy with removal of right ureteric stump with ileal conduit under general anesthesia and epidural analgesia (Fig. 3). Histopathology reported as a papillary lesion with finger-like processes lined by pseudostratified columnar epithelium with abundant goblet cells. The cells demonstrated nuclear stratification, crowding, hyperchromasia, prominent nucleoli and abundant atypical cells with no evidence of malignancy (Fig. 4). This patient is under regular follow up and doing well.

DISCUSSION: Villous adenomas are common neoplasms in GIT, they rarely seen in urinary tract. Prior to Cheng et al. report of 23 cases of urinary tract villous adenoma from two large tertiary institutions,^[4] only isolated cases had been reported, reflecting the rarity of these lesions.

There are few reported cases of villous adenoma of the urinary tract in the English medical published work. [Table 1].

Reference	Age/sex	Symptom	Location	Treatment
Assor ^[5]	58F	Hematuria	Dome	TUR
Miller et al ^[6]	79M	Hematuria	Posterior wall	TUR
Soli el al ^[7]	52M	AUR	Posterior wall	Cystoprostatectomy
Chaudhuri et al ^[8]	49M	Hematuria	Trigone	TUR
Adegbayega ^[9]	40M	UTI	Dome	Partial cystectomy
Our case	55M	AUR with mucus and tumor	Dome, ureter, bladder neck	Cystoprostatectomy

Table 1: Summary of isolated villous adenoma in the urinary bladder in published reports

AUR, acute urinary retention; UTI, urinary tract infection; TUR, Trans urethral resection.

Villous adenomas are found most frequently in men. Patients ranged from 33 to 79 years of age. Most common site of villous adenoma in urinary tract is bladder. Rarely seen in urethra,^[10] urethral diverticulum ^[11] and ureter.^[3] Patients with villous adenoma of urinary bladder will present clinically with hematuria, irritative symptoms and mucusuria.^[2,8] Mucous production by villous adenoma of the urinary tract is often copious. Therefore, tumor growth with mucus retention was considered to be the main cause of ureteral obstruction in this patient. The most frequent site was the bladder dome and the posterior wall; in our case posterior wall, trigone, dome, prostatic urethra and right ureteric stump were involved.

Embryologically, the distal colorectum and bladder both develop from the partitioning of the cloaca by the urorectal septum. It has been postulated that parts of the cloacal rests may remain in the adult bladder and urachus with the potential to form a glandular epithelial neoplasm. Histologically, urinary tract villous adenomas are identical to colonic villous adenomas. They both exhibit rounded projections of pseudostratified columnar epithelium with goblet-type mucin-producing cells and the nuclear atypia is variable.^[12]

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The differential diagnosis of a villous adenoma includes florid cystitis glandularis and a well-differentiated adenocarcinoma. The former does not have the well-formed villous structures that are typical of the villous adenoma. In the latter, the epithelium is pseudostratified and the nuclei are enlarged, crowded and hyperchromatic, features that are not present in cystitis glandularis.^[13]

Recurrence of the original tumor or subsequent development of adenocarcinoma is rarely seen. Degree of dysplasia and surrounding stromal reaction are the predictive factors for invasion. In our case the tumor was highly recurrent with presence of dysplasia and local aggressiveness.

CONCLUSION: Patients with isolated villous adenomas in the urinary bladder have an excellent prognosis and surgical resection is curative. However, it is uncertain whether an untreated lesion might eventually develop into an adenocarcinoma.^[2] Increased rate of recurrence, local aggressiveness, premalignant nature, morbidity in form of impending renal failure and bladder outlet obstruction, this tumor needs to be managed by ablative surgery. A thorough and close follow up of these patients is recommended as it is a premalignant and recurrent disease.

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Figure 1: Cystoscopy showing papillary tumor over left lateral wall.

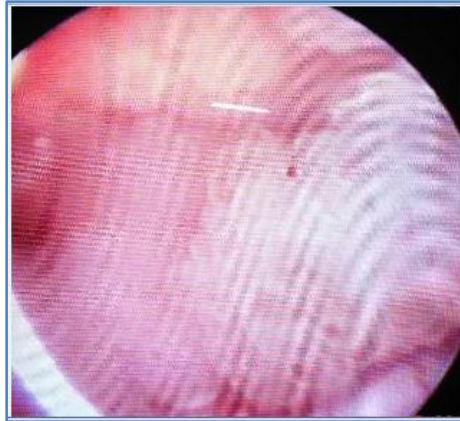


Fig. 1

Figure 2: Contrast enhanced CT scan showing mass lesion occupying trigone, dome, and lateral walls of urinary bladder.



Fig. 2

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Figure 3: Involvement of right ureteric stump with villous adenoma.

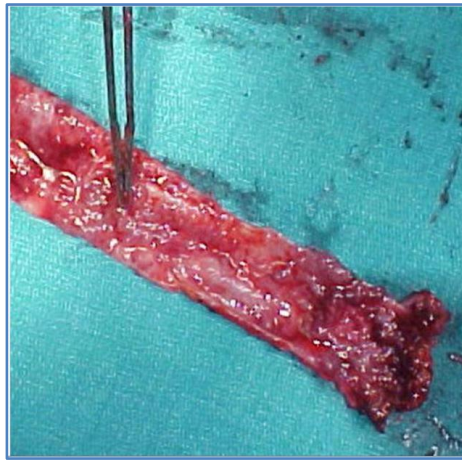


Fig. 3

Figure 4: High power view shows mucin substance in the cytoplasmic vacuoles of the columnar Glandular cells (mucicarmine stain, 400×).

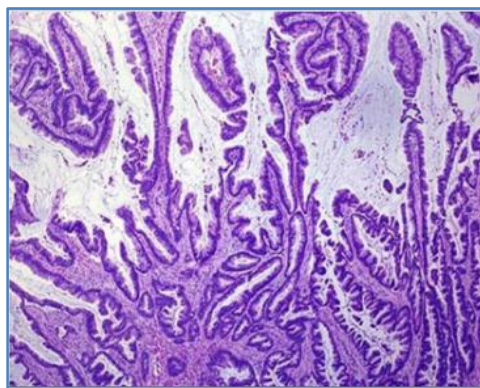


Fig. 4

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