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CASE REPORT

A giant ureteral fibroepithelial polyp in a middle-aged woman: A case report

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Abstract

Background: Fibroepithelial polyp, especially in the ureter, is a rare condition to report. Though it is a benign tumour, patients usually present with haematuria, which mimics the symptoms of upper urinary tract urothelial cell carcinoma.

Case description and management: We present a case of a 45-year-old woman with painless episodic haematuria for 1 month. Urethrocystoscopy and ureteroscopy detected a pedunculated, long, narrow polyp (6 cm) arising from the mid ureter. It was resected by cutting the base of the polyp with a cold cup biopsy forceps. Haematuria resolved following the procedure, and the patient's recovery was uneventful. A fibroepithelial polyp of the ureter is a rare benign tumour that mimics the typical findings of upper urinary tract urothelial cell carcinoma. Therefore, it should be included in the differential diagnosis of upper urinary tract urothelial cell carcinoma. Diagnosis can be made with careful history-taking and imaging techniques.

Conclusion: A ureteral fibroepithelial polyp can be safely managed with endoscopic resection.

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Key messages

Though ureteral fibroepithelial polyps are rare, they should be considered in the differential diagnosis of upper tract urothelial cell carcinoma in middle-aged patients, especially when urine cytology and biopsy are negative for malignancy . We report a case of a giant ureteral fibroepithelial polyp that was safely managed with endoscopic resection.

Introduction

Fibroepithelial polyps of the urinary system are rare, benign, non-epithelial tumours of mesodermal origin [1]. Fibroepithelial polyps in the urine-collecting system occur in 2-6% of cases [2]. Though opinions on the disease's gender preference are divided, some data indicate that women are slightly more likely to have it, and individuals between the ages of 20 and 40 are typically affected [3]. They frequently exhibit haematuria and/or flank pain. Some of these polyps are extremely large and can affect the entire ureter, clinically and radiologically mimicking urothelial cancer [4]. The majority of urinary tract fibroepithelial polyps are discovered in the proximal ureter, although they can also be detected in the renal pelvis and, less frequently [5], in the distal portion of the ureter, bladder, and urethra [3]. Both the diagnosis and treatment of Ureteral Fibroepithelial lack established protocols, and the postoperative follow-up is not standardised [4]. There are very few case reports worldwide, and none like this has been reported in Bangladesh. We present a middle-aged woman with a mid-ureteral fibroepithelial polyp.

Case description and management

A 45-year-old woman presented with gross, painless, episodic, self-limiting haematuria for one month. She also noticed the passage of fleshy material and clotted blood during micturition on several occasions. There was a history of burning micturition and frequency. There was no history of flank pain, fever with chills, cloudy urine, weight loss, constitutional symptoms of tuberculosis or malignancy. She had not experienced similar symptoms before. There was no significant medical, family, psycho-social history or genetic predisposition. There were no relevant past interventions. Her menstrual cycle is regular. There were no significant findings on physical examination.

Previously, fibroepithelial polyps were treated with open exploration and resection. At present, with advances in endoscopic and laparoscopic techniques and tools, patients with fibroepithelial polyps can be treated endoscopically, percutaneously, or laparoscopically. The percutaneous antegrade approach is preferred for ablation of polyps located in the renal pelvis or proximal ureter. At present, laser treatment is performed more frequently for fibroepithelial polyps located in the proximal ureter and mid ureter. In our case, the polyp in the mid ureter was resected using cold cup biopsy forceps under ureterorenoscopy. Laparoscopy has been performed to resect large and elongated polyps.

An ultrasonography of the kidney, ureter and bladder detected a mass at the left vesico-ureteric junction protruding into the urinary bladder. Contrast computed tomography scan of kidney, ureter, and bladder detected a soft tissue mass (6.6 x 6.8 x 17.4) mm in the left postero-lateral of the urinary bladder near the vesico-ureteric junction, protruding into the urinary bladder. Urinalysis detected microscopic hematuria and pyuria, but the urine culture was negative. Urine cytology was also negative for malignancy.

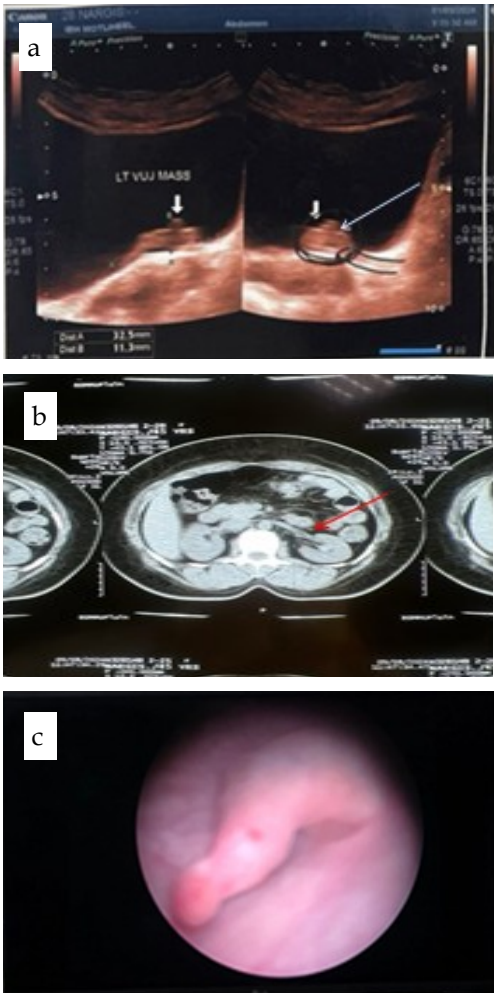

Figure 1 Diagnostic images including macroscopic image. a) Ultrasonography of kidney, ureter, and bladder demonstrating left VUJ mass protruding into urinary bladder, b) Computed tomography scan of kidney, ureter, and bladder demonstrating a small thickening of the right mid ureter, c) Pedunculated polyp protruding through left ureteric orifice seen under ureteroscopy.

After appropriate counselling, the patient underwent urethro-cystoscopy, which revealed an irregular polypoid mass protruding through the left ureteric orifice. A guidewire and ureteroscope could not be negotiated through the ureteric orifice, as it was completely occupied by the polyp. The polyp was initially resected using a loop electrode. Then a 0.035 -inch guidewire was negotiated, and ureteroscopy was performed by an 8Fr semi-rigid Ureteroscope. A pedunculated, long, narrow tumour (6 cm) was identified arising from the mid-ureter. The base of the pedunculated mass was clearly identified, and endoscopic resection was done by cutting the base with cold cup biopsy forceps. There were no intraoperative complications. The tumour was exteriorised later using a grasper. A 6Fr D-J stent was

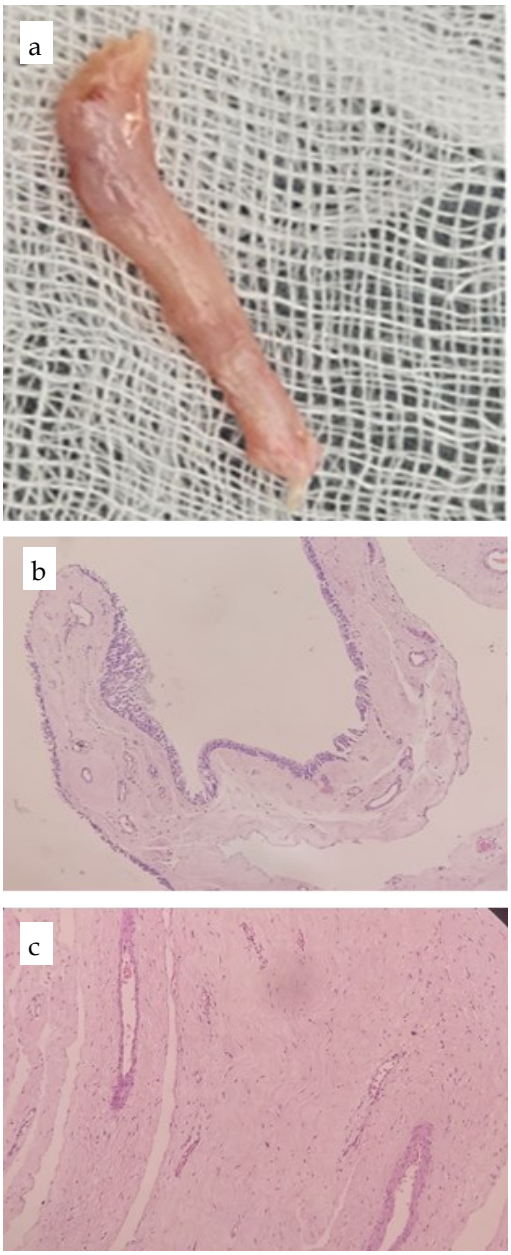

Figure 2 Macroscopic and microscopic features of the polyp. a) Gross findings of removed ureteral polyp. it was smooth with glossy surface measring about 6cm×1cm, b) Fragments of fibroepithelial polyp lined by normal urothelium, c) Fibroepithelial polyp consisting of a fibrovascular core.

placed. The total operative period was 30minutes. Her postoperative period was uneventful. The patient was discharged on the second postoperative day after the catheter was removed.

The patient was discharged with advice to remove the stent after four weeks, which was done. There was no further haematuria following the procedure. Urinalysis showed no microscopic haematuria, and culture revealed no bacterial growth. A histopathology report from the Department of Pathology revealed a fibroepithelial polyp; no granuloma or malignancy was observed. Another follow-up after three months was uneventful as well.

Discussion

It is unknown exactly what causes ureteral polyps. However, some endogenous hormonal imbalances, trauma, allergic reactions, viral infections, congenital conditions, and/or obstruction may be involved. The majority of patients present with haematuria and flank pain. Although it can be asymptomatic, it is less commonly symptomatic, presenting as recurrent urinary tract infections or urine retention. [3].

An important point from the German case study was that, although a 61-year-old man presented with haematuria, which usually indicates urinary malignancy, urine cytology and tumour biopsy showed non-malignant results, and an intraoperative frozen section revealed a fibroepithelial polyp of the right mid ureter. [5]

Another 37-year-old patient from Tunisia presented with total intermittent haematuria of 3 months' duration, and cytology was also normal. Uro computed tomography scan showed an obstructive intra-luminal lesion measuring 5 cm, localised in the left pelvic and iliac regions. The patient underwent endoscopic excision of the polyp. Final histological examination confirmed the diagnosis of a fibroepithelial polyp. After 4 years' follow-up, there were no signs of complications or recurrence on the uro computed tomography scan. [1]. Therefore, the important point was that the cause of haematuria in a young patient may be benign but must be confirmed after histopathology.

In India, a 32-year-old married woman presented with complaints of painless haematuria for one year without any associated lower urinary tract symptoms. Urine microscopy showed red blood cells, but was negative for malignant cells. Computed tomography abdomen showed a right ureteric mass lesion with hydronephrosis and no involvement of the urinary bladder. Intraoperative cystoscopy showed a small 1 cm tumour protruding into the bladder from the right ureteric orifice. Subsequently, a small bit of tumour projecting from the ureteric orifice was submitted for frozen section. Histopathological examination revealed a polyp [4]. Again, an important point is that, though long-term haematuria, a benign ureteral polyp must be considered in the differential diagnosis.

A case study from Turkey showed a 54-year-old woman with only right flank pain with no haematuria. Ultrasonography and computerised tomography detected grade-2 hydronephrosis of the right kidney; however, no stone was detected in the urinary system. Magnetic resonance imaging detected thickening of the right proximal ureteral wall, with contrast enhancement. These findings suggested the presence of a ureteral polyp. Ureterorenoscopy detected a 7-cm-long ureteral polyp in the proximal ureter, which was removed by performing monopolar cautery [2]. The important point, in this case, was that the ureteral polyp may present without haematuria.

A 9-year-old Turkish boy presented with unilateral flank pain and macroscopic haematuria. Magnetic resonance urography was performed, revealing a filling defect in the left proximal ureter. On cystoscopy, a polyp was observed at the orifice of the left ureter, extending along the ureter. The polyp was resected by laser ablation and removed from the ureter. Histopathological examination revealed a fibroepithelial polyp [6]. Here, the important point was that a ureteral fibroepithelial polyp might be a differential diagnosis in the paediatric age group presented with hematuria and flank pain.

In our case, the patient's symptoms and signs mimicked urinary tract malignancy. Imaging (ultrasonography and computed tomography) could not provide any clue as to whether the mass was benign or malignant. Therefore, a diagnostic dilemma persisted until the histopathology report was available.

A fibroepithelial polyp of the ureter is a benign tumour, but it is significant because it mimics the typical findings of upper urinary tract urothelial cell carcinoma. Ureteric polyp has to be included in the differential diagnosis of upper urinary tract urothelial cell carcinoma, especially when urine cytology and biopsy are negative. Furthermore, patients suspected of having fibroepithelial polyps should undergo both diagnostic and curative ureterorenoscopy. A ureteral fibroepithelial polyp can be safely managed by endoscopic resection.

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Author contributions

Manuscript drafting and revising it critically: SD, AAA, SH, MZI. *Approval of the final version of the manuscript:* SD, AAA, SH, MZI. *Guarantor accuracy and integrity of the work:* SD, AAA, SH, MZI.

Conflict of interest

We do not have any conflict of interest.

Data availability statement

We confirm that the data supporting the findings of the study will be shared upon reasonable request.

Supplementary file

None

AI disclosure

None

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