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Urinary Bladder Fibroepithelial Polyp Presenting with Gross Hematuria in a 10-Year-Old Girl

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ABSTRACT

Fibroepithelial polyps are rare benign lesions of mesodermal origin that may arise within the urinary tract. Urinary bladder involvement is uncommon, particularly in children. Because these lesions may appear as vascularized polypoid bladder masses, they may mimic other bladder tumors. Histopathological examination is therefore essential for definitive diagnosis.

A 10-year-old girl presented on 24/07/2026 with a 9–10-day history of gross hematuria and a sensation of incomplete bladder emptying. She was clinically well, with mild suprapubic tenderness. Laboratory evaluation demonstrated hematuria, and urine culture grew Escherichia coli (>10^5 CFU/mL). Antibiotic treatment was initiated; however, hematuria persisted. Abdominal and pelvic ultrasonography subsequently demonstrated a well-defined, approximately 1 × 1 cm vascularized hyperechoic lesion arising from the right posterior wall of the urinary bladder. The patient underwent cystoscopic excision of the lesion. Histopathological examination demonstrated a fibroepithelial polyp composed of fibrovascular stroma lined by urothelium, with reactive urothelial changes, acute inflammatory cell infiltration, and focal stromal infarction with hemorrhage and degenerative changes. No significant cytologic atypia, carcinoma in situ, or invasive malignancy was identified. The final diagnosis was fibroepithelial polyp with focal infarction and inflamed/reactive urothelium, negative for malignancy. The patient had a favorable postoperative course through 04/08/2026. Fibroepithelial polyp should be considered in the differential diagnosis of a bladder mass in children presenting with gross hematuria. Although imaging can identify the lesion, histopathological examination is essential for definitive diagnosis and exclusion of malignancy. Cystoscopic excision provides tissue for definitive diagnosis and treatment of an appropriate localized lesion.

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Introduction

Fibroepithelial polyps are benign mesodermal lesions that can occur throughout the urinary tract. They are uncommon in children, and urinary bladder involvement is particularly rare. Pediatric urinary bladder masses encompass a broad spectrum of benign, reactive, and malignant lesions, making accurate diagnosis important for appropriate management.

Fibroepithelial polyps may present with nonspecific urinary symptoms, including hematuria, dysuria, urinary obstruction, and difficulty with bladder emptying. On imaging, they may appear as polypoid or vascularized intraluminal lesions and may therefore resemble other bladder neoplasms. Histopathological examination remains essential for establishing the definitive diagnosis.

A 21-year pathology review of pediatric urinary bladder masses demonstrated that fibroepithelial polyp was among the most frequent diagnoses after rhabdomyosarcoma, emphasizing that the spectrum of pediatric bladder lesions differs from that seen in adults [1].

We report the case of a 10-year-old girl who presented with gross hematuria and incomplete bladder emptying and was found to have a small vascularized lesion arising from the posterior wall of the urinary bladder. Cystoscopic excision and histopathological examination confirmed a fibroepithelial polyp with focal infarction and inflamed/reactive urothelium, without evidence of malignancy.

Case Presentation

A 10-year-old female patient presented on 24/07/2026 with a 9–10-day history of gross hematuria associated with a sensation of incomplete bladder emptying.

The patient was clinically well. Physical examination revealed mild suprapubic tenderness, with no other significant abnormal findings.

No significant past medical or surgical history, regular medication use, or known drug allergies were documented in the available clinical information.

On clinical examination, the patient appeared well. Mild suprapubic tenderness was present. No other significant abnormalities were identified on physical examination.

Laboratory investigations demonstrated hematuria, and urine culture was positive for *Escherichia coli* at a concentration greater than 10^5 CFU/mL.

Abdominal and pelvic ultrasonography demonstrated a well-defined, approximately 1 × 1 cm vascularized hyperechoic lesion arising from the right posterior wall of the urinary bladder.

Because hematuria persisted and a bladder lesion had been identified on imaging, further urological evaluation was performed. The lesion was subsequently removed by cystoscopic excision and submitted for histopathological examination.

The principal differential diagnoses included a benign fibroepithelial polyp, urothelial papilloma, and other pediatric bladder masses, including malignant lesions such as rhabdomyosarcoma. Pediatric bladder masses have a diverse histological spectrum, and tissue examination is important for definitive diagnosis.

Gross examination demonstrated a single fragment of gray-brown papillary tissue measuring 0.9 × 0.6 × 0.4 cm, which was bisected and totally submitted for examination.

Microscopic examination demonstrated a polypoid lesion composed of fibrovascular stroma lined by urothelium. The urothelial lining showed reactive changes with acute inflammatory cell infiltration, with preserved umbrella cells. Mitoses were confined to the basal layer, and no atypical mitoses were identified. Focal stromal infarction was present with associated hemorrhage and degenerative changes.

No significant cytologic atypia, carcinoma in situ, or invasive malignancy was identified.

The final diagnosis was:

Fibroepithelial polyp with focal infarction and inflamed/reactive urothelium. Negative for malignancy.

The patient underwent cystoscopic excision of the urinary bladder lesion. The excised specimen was submitted for histopathological examination, which confirmed the diagnosis of a benign fibroepithelial polyp with focal infarction and inflamed/reactive urothelium.

The documented medications administered during hospitalization included:

- Atropine sulfate 1 mg/1 mL, one ampoule intravenously as a stat dose.
- Cefixime 100 mg/5 mL oral suspension.
- Dexamethasone 4 mg intravenously.
- Paracetamol 1000 mg intravenously; 500 mg three times daily as documented.
- Propofol 11.5 mg/20 mL intravenously.
- Tailol Forte 250 mg/100 mL orally.
- Tixon 1 g intravenously without lidocaine.

The available documentation did not specify the duration or exact rationale for each medication; therefore, these details were not inferred.

Following cystoscopic excision, the patient had a favorable postoperative course.

She was followed through 04/08/2026, corresponding to approximately 10 days after the procedure. No postoperative complications were reported during this period, and no recurrence of the bladder lesion was observed. The patient's timeline is shown in Table 1.

Because the available follow-up period was limited to 10 days, long-term recurrence and long-term clinical outcome cannot be assessed from the available information.

Discussion

Fibroepithelial polyps are rare benign lesions that may occur throughout the urinary tract. They are particularly uncommon in the urinary bladder of children. Pediatric bladder masses have a broad differential diagnosis, including benign lesions as well as malignant tumors such as rhabdomyosarcoma.

A 21-year pathology review of pediatric urinary bladder masses identified 98 specimens from 65 patients. Rhabdomyosarcoma was the most frequent diagnosis, followed by fibroepithelial polyp and other nonurothelial lesions. Only seven urothelial tumors were identified in that series, highlighting the distinct spectrum of pediatric bladder pathology compared with adults [1].

The present case is notable because the patient was a 10-year-old girl who presented with gross hematuria and incomplete bladder emptying. Ultrasonography demonstrated a small, well-defined, vascularized hyperechoic lesion arising from the right posterior bladder wall.

Hematuria is a recognized presentation of lower urinary tract fibroepithelial polyps, although it is nonspecific and may also occur with urinary tract infection and other bladder lesions. A multicenter pediatric study of 33 children with lower urinary tract fibroepithelial polyps reported hematuria in 41% of patients, urinary retention in 25%, dysuria in 19%, and urinary infection in 28%. Ultrasound was the initial diagnostic examination in 94% of patients, and most lesions were treated endoscopically. No recurrence or complications were reported after a median follow-up of 13 months [2].

In the present patient, urine culture demonstrated *E. coli* (>10^5 CFU/mL), providing an additional potential explanation for the urinary symptoms. However, persistence of hematuria and identification of a bladder mass warranted further evaluation.

Table 1. Timeline of the patient

Date	Clinical Event
24/07/2026	Presentation with gross hematuria and a sensation of incomplete bladder emptying. Clinical assessment was performed.
24–25/07/2026	Laboratory investigations demonstrated hematuria. Urine culture grew *E. coli* (>10^5 CFU/mL). Antibiotic treatment was initiated.
26–28/07/2026	Hematuria persisted despite treatment, prompting further investigation.
29/07/2026	Abdominal and pelvic ultrasonography demonstrated a well-defined, approximately 1 × 1 cm vascularized hyperechoic lesion arising from the right posterior bladder wall.
30–31/07/2026	Further urological evaluation and preparation for operative management were undertaken.
01/08/2026	Cystoscopic excision of the bladder lesion was performed. The specimen was submitted for histopathological examination.
02–03/08/2026	Histopathological examination confirmed a fibroepithelial polyp with focal infarction and inflamed/reactive urothelium, negative for malignancy.
04/08/2026	Postoperative follow-up showed a favorable clinical course without reported postoperative complications or recurrence.

The imaging appearance of a fibroepithelial polyp is not pathognomonic. A vascularized polypoid lesion within the bladder may raise concern for a neoplastic process. Consequently, imaging alone cannot reliably distinguish a fibroepithelial polyp from other bladder masses, and tissue diagnosis remains important.

Cystoscopic excision provided tissue for definitive diagnosis in this case. Histopathological examination demonstrated a polypoid lesion composed of fibrovascular stroma lined by urothelium. The urothelial lining demonstrated reactive changes and acute inflammation, with preserved umbrella cells. Mitoses were limited to the basal layer without atypical mitoses. No significant cytologic atypia, carcinoma in situ, or invasive malignancy was identified.

An additional finding was focal stromal infarction with associated hemorrhage and degenerative changes. Although a direct causal relationship between the infarction and gross hematuria cannot be established from a single case, the hemorrhagic and infarcted changes are potentially relevant pathological findings.

The patient's sex is also noteworthy. Pediatric lower urinary tract fibroepithelial polyps have demonstrated a male predominance. In the multicenter series by Rousseau et al., 26 of 33 patients were boys and seven were girls [2]. Therefore, the occurrence of a urinary bladder fibroepithelial polyp in a 10-year-old girl represents an uncommon presentation.

Previous pediatric reports have described bladder fibroepithelial polyps presenting with hematuria and voiding symptoms and treated by endoscopic removal. Natsheh et al. reported two pediatric cases involving the bladder neck; both were treated by transurethral resection and remained free of urinary symptoms during long-term follow-up [3].

A major strength of this case is the correlation between the clinical presentation, laboratory findings, ultrasonographic appearance, cystoscopic management, and definitive histopathological findings.

The principal limitation is the short follow-up period. Only 10 days of postoperative follow-up were available, so long-term recurrence cannot be assessed. Additionally, this is a single case and therefore cannot establish the frequency or general clinical behavior of bladder fibroepithelial polyps in children.

This case emphasizes that a benign fibroepithelial polyp should be included in the differential diagnosis of a pediatric bladder mass, particularly when the presentation includes gross hematuria.

Although ultrasonography can demonstrate the presence, location, and vascularity of the lesion, histopathological examination is essential for definitive diagnosis and exclusion of malignancy. Cystoscopic excision can provide both definitive tissue diagnosis and treatment for a localized lesion.

Conclusion

Fibroepithelial polyp of the urinary bladder is a rare benign lesion in children and may present with gross hematuria and symptoms of incomplete bladder emptying. In the present case, ultrasonography demonstrated a small vascularized lesion arising from the posterior bladder wall, while cystoscopic excision allowed definitive histopathological diagnosis.

Histopathology confirmed a fibroepithelial polyp with focal infarction and inflamed/reactive urothelium, without evidence of malignancy.

The patient had a favorable short-term postoperative outcome, with no reported complications or recurrence through 04/08/2026.

This case highlights the importance of considering fibroepithelial polyp among pediatric bladder masses and emphasizes the essential role of histopathological examination in distinguishing benign lesions from malignant mimics.

Patient Perspective

The patient described feeling shy and embarrassed because of her condition and expressed gratitude toward her mother for providing emotional support throughout the experience:

"This made me feel so shy, and I thank my mom because she made me feel good."

The patient's mother reported that she was very worried about her daughter's condition. She expressed her gratitude to the doctors and the surgical department for their care and treatment of her daughter:

"I was very worried, and I would like to thank the doctors in the surgical department for taking care of my daughter."

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Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this article.

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Conflict of Interests

The authors have no conflict of interest to declare.

References

[1] Huppmann AR, Pawel BR. Polyps and masses of the pediatric urinary bladder: a 21-year pathology review. Pediatr Dev Pathol. 2011;14(6):438-44. https://doi.org/10.2350/11-01-0958-oa.1

[2] Rousseau S, Peycelon M, Grosos C, Bidault V, Poupalou A, Martin G, et al. Management of lower urinary tract fibroepithelial polyps in children. J Pediatr Surg. 2021;56(2):332-6. https://doi.org/10.1016/j.jpedsurg.2020.05.030

[3] Natsheh A, Prat O, Shenfeld OZ, Reinus C, Chertin B. Fibroepithelial polyp of the bladder neck in children. Pediatr Surg Int. 2008;24(5):613-5. https://doi.org/10.1007/s00383-007-2096-2