

Inflammation and infection

Case report and video presentation: Trans-urethral resection of bladder endometriosis

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ARTICLE INFO

Keywords:

Endometriosis
Urinary bladder
Trans-urethral resection

ABSTRACT

Urinary endometriosis is a rare condition accounting for 1–5.5% of the extragenital endometriosis locations. The diagnosis takes long time during which patient misdiagnosed as urinary tract infection or interstitial cystitis.

A 25-year-old married woman presented with cyclical pain last for ten days every month for six months prior to diagnosis. There was no history of hematuria. Had three times caesarian section. Endometrial mass on posterior wall of bladder about 3 × 2 cm treated by transurethral resection.

Chocolate appearance of blood during transurethral resection is highly suggestive of diagnosis of bladder endometriosis.

1. Introduction

The urinary tract endometriosis observed in 1–2% of the patients. The most common sites of urinary tract endometriosis are the bladder, ureter, and kidneys, with a ratio of 40:5:1, respectively.¹

In other words 90% of urinary endometriosis, there are endometriosis nodules in the bladder and the lesions are often located in close proximity to the uterus.

The symptoms of urinary tract endometriosis is non-specific so the diagnosis delayed. Cyclical gross hematuria present in 20% of cases is pathognomonic for bladder endometriosis.²

2. Case history

A 25-year-old married woman presented with cyclical pain last for ten days premenstrual, menstrual and post menstrual every month for six months prior to diagnosis. The pain was severe in lower abdomen, dysuria, and genital pain. There was no history of hematuria. Menstrual cycles were regular, she had been seen by many gynecologist was given nonspecific therapy but without benefit.

She has been married for 8 years, three times caesarean sections.

Abdominal examination norm apart from healed scar of previous caesarian section, norm pelvic examination. Laboratory test results including a complete blood count, serum biochemical analysis, urine analysis and urine culture were normal. Abdominal ultrasonography showed 26 × 25 × 26 mm dimensions of mass was related to posterior bladder wall (Fig. 1), no calcifications, Uterus measure 85 × 42 mm in size homogenous myometrial texture with no focal lesion with 5 mm

endometrial thickness. Both ovaries are normal in size with follicular parenchyma with no mature follicle. Clear both adenixia.

Office cystoscopy reveled a nodule on the posterior wall of bladder, planned for transurethral resection (TUR).

TUR under general anesthesia, reveled normal urethra, both ureteric orifices were normal.

A mass on posterior wall of bladder about 3 × 2 cm covered with edematous bullae (Fig. 1) TUR done on first cut bloody colored like jelly material spilled from the mass. Complete resection of mass done with hemostasis. We took out the urethral catheter the day after. Our patient was discharged on the first postoperative day. The pathologic specimen demonstrated (Classical endometriosis, completely excised). Intrinsic endometriosis with endometrial glandular cells and stromal tissue (Fig. 2).

Now, our patient is in the first year of follow-up and has not experienced any signs of recurrence of symptoms and we did not observe recurrence of lesion on ultrasonography or endoscopy.

3. Discussions

About 10% of fertile women are affected with endometriosis and the main symptoms are pain, menstrual disorders and infertility.³ It has an estimated prevalence of 10% women of reproductive age, with a peak incidence between 30 and 45 years of age. The urinary tract endometriosis is observed in 1–2% of the patients. The most common sites of urinary tract endometriosis are the bladder, ureter, and kidneys, with a ratio of 40:5:1, respectively.¹

In other words 90% of urinary endometriosis, there are

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<https://doi.org/10.1016/j.eucr.2019.100877>

Received 11 March 2019; Accepted 20 March 2019

Available online 23 March 2019

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Fig. 1. Abdominal ultrasound, hypoechoic bladder base mass.

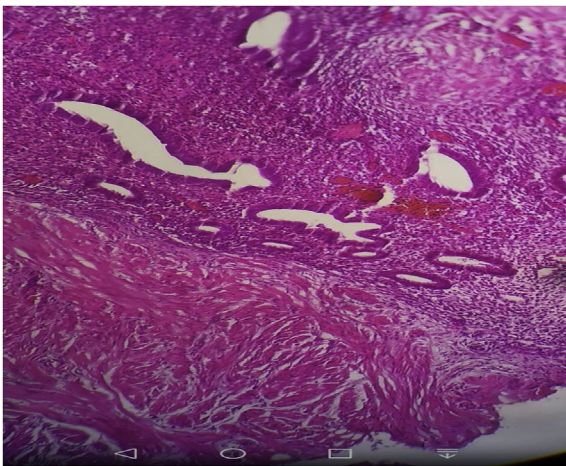


Fig. 2. Non-secretory endometrial glands with surrounding stromal tissues showing hemosiderin Laden histiocyte and new hemorrhage consistent with endometriosis of bladder.

endometriotic nodules in the bladder and the lesions are often located in close proximity to the uterus.

The symptoms of urinary tract endometriosis is non-specific so the diagnosis delayed. Cyclical gross hematuria present in 20% of cases is pathognomonic for bladder endometriosis.²

Endometriosis of bladder may present as primary form, in which direct endometrial implantation occur or more commonly as secondary form, usually after Caesarean section in this form usually the implantation limited to bladder wall like in our patient.¹

In our reported case hematuria was absent the main complaint was severe cyclical pain that last for six months until the definitive diagnosis was made. She had no complaints of dysmenorrhea, dyspareunia or infertility. A vaginal examination should be performed in all patients with suspected endometriosis. She had a normal vaginal examination prior to surgery.

The main presentation of patients with endometriosis of bladder is cyclical pain. Multiple biological factors are involved in endometriosis-related pain including tissue damage, inflammation, hormonal changes, alterations within the peripheral and central nervous system.³

Genitourinary endometriosis is particularly difficult to diagnose, and is commonly mistaken for other pathologies, such as irritable bowel syndrome, interstitial cystitis, and even psychological disturbances. This leads to delay in diagnosis, mismanagement, and unnecessary testing.⁴

There is no single treating approach for bladder endometriosis patients.

Endometriosis of bladder can be treated with partial cystectomy either open or laparoscopic approach. Medical approaches, including hormonal therapies such as GnRH agonists and oral contraceptives, tend to be a temporary measure, but can be useful in a preoperative setting or if the patient is unsuitable for surgery.⁵

In our case treated by endoscopic resection, TUR is feasible with minimal morbidity and no recurrence.

4. Conclusions

Diagnosis of bladder endometriosis pre operatively is difficult; chocolate appearance of blood during transurethral resection is highly suggestive of diagnosis, Any women with severe cyclical symptoms of dysuria, lower abdominal pain and nonspecific external genitalia pain lead to suspicion of diagnosis of endometriosis particularly with prior caesarean section.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.eucr.2019.100877>.

References

1. Gupta A, Bhatnagar A, Seth BN, et al. "Bladder endometriosis mimicking TCC—a case report." *J Clin Diagn Res.* 2016;10(2):12–13.
2. Akpınar S, Yılmaz G, Celebioğlu E. A rare cyclic recurrent hematuria case; bladder endometriosis. *Quant Imag Med Surg.* 2015;5(3):485–487.
3. Aerts L, Grangier L, Dallenbach P, et al. Understanding sexual pain in endometriosis. *Minerva Ginecol.* 2019 Feb 06. <https://doi.org/10.23736/S0026-4784.19.04379-X>.
4. Young S, Burns MK, Francesco LD. Diagnostic and treatment guidelines for gastrointestinal and genitourinary endometriosis. *J Turk Ger Gynecol Assoc.* 2017 Dec;18(4):200–209.
5. Nezhat C, Falik R, McKinney S, King LP. Pathophysiology and management of urinary tract endometriosis. *Nat Rev Urol.* 2017;14:359–372.