

Case Report

Isolated Vesical Endometriosis: Diagnosis and Management

Angela Emmanuel*
Syeda Batool Mazhar**

*FCPS Resident

**Professor Obstetrics and Gynecology
MCH Centre Unit II, Pakistan Institute of Medical

Address for Correspondence:

Dr. Angela Emmanuel
FCPS Resident
MCH Centre Unit II, Pakistan Institute of Medical Sciences, Islamabad, Pakistan
Email: nglemanuel@yahoo.com

Endometriosis is a common gynaecological condition affecting 10% of the women in general population. The most frequent sites of endometriosis are ovaries, pelvic walls and pouch of Douglas. Bladder endometriosis is a rare form seen in 1% of cases. Isolated cases of bladder endometriosis are usually iatrogenic and result from pelvic surgery. We report a case of bladder endometriosis that developed after cesarean section. Partial Cystectomy was performed successfully.

Keywords: Endometriosis, Urinary Bladder

Introduction

Endometriosis is the implantation of the endometrial tissue at the sites other than uterine cavity. The first case of endometriosis was reported in 1921.¹ The overall incidence in the general population is 10%. However, 40% of the women with infertility and 60% of those presenting with pelvic pain have endometriosis.²

Urinary tract endometriosis as sole form of presentation is unusual. Bladder is the most common site of urinary tract endometriosis and affects about 1-2% of women with endometriosis.^{3,4} Fewer than 200 cases are reported in the world literature.⁴ It affects comparatively older age group and is reported even in post menopausal women.⁵

Case Report

A 26 years old women P₁⁺⁰, presented with the complaint of painful micturition during menstruation and lower abdominal pain for three years following caesarean delivery. There was no associated gross hematuria, urgency, frequency or fever. Menstrual cycle was regular with average blood loss but there was complaint of gradually increasing lower abdominal pain for the last three years. Medical treatment for suspected urinary tract infection was unsuccessful. Examination was unremarkable. Urinalysis revealed hemoglobinuria during menstruation. Ultrasonography showed a tract extending from uterine scar to bladder.

Provisional diagnosis of scar site endometriosis was made. Cystoscopy was unremarkable and hysteroscopy revealed distorted uterine cavity in the region of anterior wall. At laparotomy, bladder was adherent to the uterine scar and 4 x3 cm endometriotic mass was found in the posterior wall of bladder (Figure I). Bladder was separated from the uterine scar with

sharp

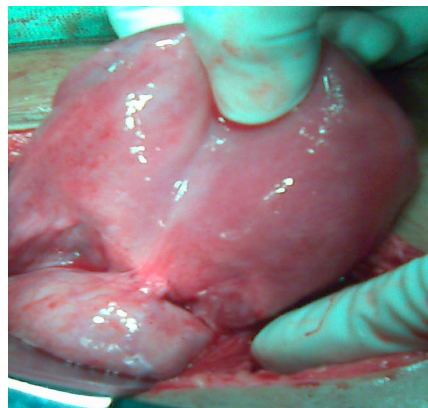


Figure I: Operative Findings

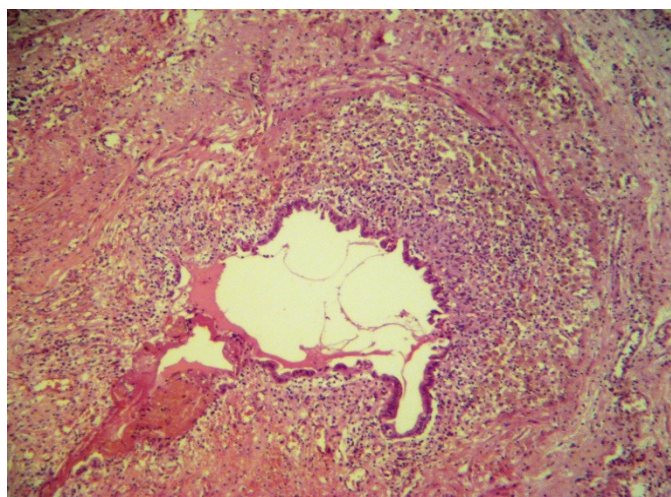


Figure II: Focus of Endometriosis in bladder wall showing 1. endometrial glands 2. Stroma 3. ceriod macrophages 4. Muscularis of bladder (100 x H& E)

urethral catheter left for 7 days. The histological diagnosis was bladder endometriosis (Figure II). Postoperative course was uneventful and symptoms resolved completely after resection of bladder endometriosis.

Discussion

The etiology and pathology remains unclear. Bladder endometriosis exists in two forms, primary and secondary. The former is the part of generalized pelvic disease and the later is iatrogenic resulting from a pelvic surgery as hysterectomy or caesarean section. It may cause fibrosis of the bladder and periureteric structures leading to nephrological complications. Early diagnosis can prevent irreversible damage.

The diagnosis of the bladder endometriosis is made primarily on the basis of symptoms which may be vague thus causing delay in the diagnosis. Most common presenting complaints are dysmenorrhoea, infertility associated with urological symptoms, deep dyspareunia and hematuria. The cyclical recurrence of the symptoms in relation to the menstrual cycle is very characteristic.⁴ Examination is mostly unremarkable however; a tender nodule may be palpable in the anterior fornix in 30-50% of the cases. Ultrasonography can be used to visualize the lesion. In the majority of cases of bladder endometriosis, it is possible to perform the radiologic diagnosis with a transvaginal ultrasonography, without the need for MRI or CT (computed tomography) evaluations.⁶ Cystoscopy reveals an endometriotic nodule in minority of the cases. The findings vary with the phase of menstrual cycle. It is however, recommended to rule out other neoplastic lesions.

Treatment of bladder endometriosis mainly relies upon conservative surgical excision which provides long term relief.⁷ Medical therapy aims to create amenorrhoea but is palliative and carries high recurrence rates. Medical treatment can be instituted in patients with minimal symptoms and those who are poor surgical risk. Surgery is often challenging, time consuming and frequently requires assistance from urologists and general surgeons.

The type of surgery should be individualized according to patient's age, severity of symptoms, and extent of disease, parity, associated pelvic disease and future reproductive intentions. Open resection has been the standard treatment for bladder endometriosis. Cystoscopic and laparoscopic resection is the alternative modalities to open resection with equal efficacy and less invasiveness.² Transurethral resection is inappropriate as it has an inherent risk of incomplete resection, bladder perforation and hemorrhage. Laparoscopic approach for partial cystectomy has results comparable to laparotomy and can be offered to infertile patients

without adversely affecting fertility. The laparoscopic modality offers several advantages including less bleeding, shorter hospital stay, quicker recovery and major reduction in post operative morbidity.⁸ The approach however is complicated and requires sophisticated skills. Partial cystectomy is reported to be the most effective management in all but one case report where cystostomy and excision of lesion was done. Partial cystectomy carries a risk of decreased bladder capacity.⁹ Hysterectomy without oophorectomy has been reported in cases where fertility was not desired as there are high chances of associated adenomyosis.⁴

Conclusion

Bladder endometriosis is a rare condition but symptoms can be debilitating and may carry significant morbidity. The diagnosis requires high index of suspicion and should be considered in women presenting with cyclic urinary symptoms with negative urine cultures or symptoms suggestive of endometriosis that are temporarily relieved with antiendometriotic therapy. Partial cystectomy is the treatment of choice. The success of treatment depends upon the totality of resection. Laparoscopic and open approaches can be used with comparable results provided resection is complete.

References

1. Judd ES. Adenomyomata presenting as tumor of bladder. *Surg Clin North Am* 1921;1: 1271-1278.
2. Walid S, Heaton R. Laparoscopic partial cystectomy for bladder endometriosis. *Arch Gynecol Obstet* 2009; 280:131-135
3. Leonhartsberger N, Zelger B, Rehder P. Intrinsic endometriosis of ureter and bladder in young women without gynecological symptoms. *Urol Int* 2008;80:222-224
4. Agarwal N, Kriplani A, Nabi N, Hemal AK. Intramural bladder endometriosis after Cesarean section: Diagnostic and Therapeutic aspects. *Gynecol Surg* 2002;18:69
5. Westney OL, Amundsen CL, McGuire EJ. Bladder endometriosis: conservative management *Urol* 2000;163:1814
6. Fedele L, Bianchi S, Carmignani L, Berlanda, Fontana E and Frontino G. Evaluation of a new questionnaire for the presurgical diagnosis of bladder endometriosis. *Hum Reprod* 2007; 22:2698-701.
7. Fedele L, Bianchi S, Zanconato G, Bergamini V, Berlanda N, Carmignani L. Long-term follow-up after conservative surgery for bladder endometriosis. *Fertil Steril*. 2005 ;83:1729-33
8. Granese R, Candiani M, Perino A, Venezia R, Cucinella G. Bladder endometriosis: laparoscopic treatment and follow-up. *Eur J Obstet Gynecol Reprod Biol*. 2008; 140:114-7.
9. Fedele L, Bianchi S, Raffaelli R, Portuese A. Pre-operative assessment of bladder endometriosis *Hum Reprod*. 1997 ;12:2519-22.