



CASUISTIC PAPER

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Laparoscopic partial cystectomy for bladder endometriosis – case report

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ABSTRACT

Introduction. Endometriosis is defined as a presence of endometrial glands and stroma outside the uterus. Urinary track endometriosis is a rare occurrence (1-2%) usually associated with bladder involvement (85%).

Aim. The diagnostic evaluation is not complicated but can be delay because of the lack of specific symptoms.

Description of the case. We present a case of 20-years old female with bladder endometriosis localized on the posterior wall. The patient was effective treated with laparoscopic partial cystectomy

Conclusion. The patient was effective treated with laparoscopic partial cystectomy

Keywords. CT, endometriosis, MRI, ultrasonography

Introduction

Endometriosis is a common gynecological entity and affects up to 15–20% of women of reproductive age.¹ Depending on extension, three main forms are recognized: superficial peritoneal endometriosis, ovarian endometriosis and deep infiltrating endometriosis (DIE). DIE is the most severe, particular type that penetrating more than 5 mm under the peritoneal surface and occurs in approximately 1% of cases. Urinary track endometriosis (UTE) is a rare (about 1–2 %) but potentially devastating disease affecting quality of life.² It can also cause significant morbidity such as progressive renal function loss. The UTE incidence increas-

es up to 19-53% among patients with DIE.³ In cases of urinary involvement, bladder endometriosis (BE) is the most frequent type (85%) and is defined as a presence of endometrial glands and stroma in the detrusor muscle but the vesical mucosa is not always involved by disease.³ The most often affected part of the bladder is the base and the dome.⁴ From a clinical standpoint BE should not be consider as an independent entity because in the vast majority (87,9%) of patients the presence of concomitant nonvesical lesions has been documented.⁵ Accurate and early diagnosis is crucial for the prognosis but the assessment may be difficult when specific symptoms are lacking.

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Primary clinical presentation consists of dysuria (up to 69%), frequency, urgency and suprapubic pain. These symptoms may have a cyclical manifestation depending on menstruation. Hematuria is not a common symptom (0–35%) because the lesion rarely ulcerates the mucosal layer. Clinical manifestation may be attributed to recurrent cystitis, bladder carcinoma or interstitial cystitis, so a series of complementary tests are needed to confirm the diagnosis.^{3,6,7}

Ultrasonography (USG) performed either transvaginally or transabdominally is the ideal first line examination. It is also a reliable method for planning the most appropriate treatment. The USG performed with the full bladder enables to evaluate the size and location of the endometrial lesion and estimate the distance from ureteral orifice. BE appears as a heterogeneous iso/hypoechoic, intraluminal, conical lesion. The protrusion, usually localized on the posterior vesical wall or the dome, is covered by a narrow rim of hyperechoic submucosal and serosa layer. Typical endometrial nodule is not vascularized, spherical or comma-shaped with regular contours.^{1,3}

Cystoscopy visualize usually red or bluish cyst with non-ulcerated urothelium and provide access for biopsy which is important to rule out carcinoma, varices, papilloma or angioma. Nevertheless, it should be bear in mind that biopsy at cystoscopy is often nondiagnostic for endometriosis.⁸

MRI and CT scans usually do not contribute more detailed data to USG, cystoscopy and should not be routinely performed.⁹

Aim

The diagnostic evaluation is not complicated but can be delay because of the lack of specific symptoms.

Description of the case

20-years old female with symptoms of chronic bladder pain, painful menstruation and dyspareunia, but no he-

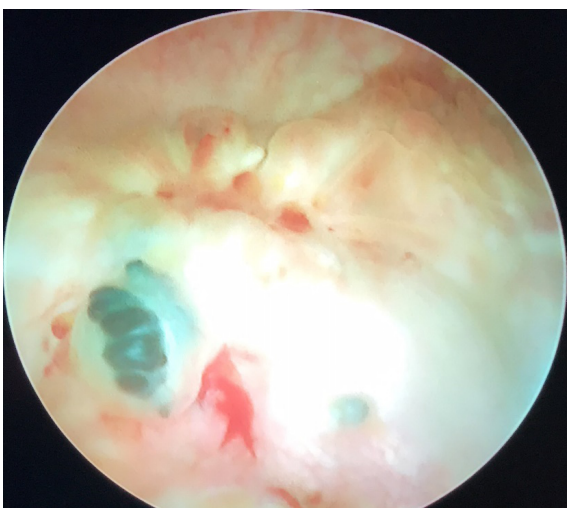


Fig. 1. Cystoscopic view

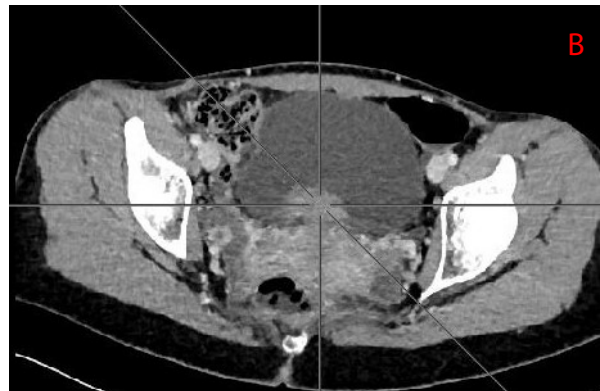
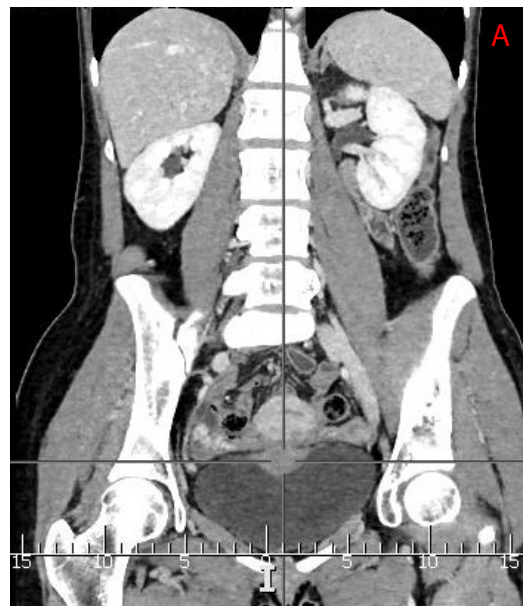


Fig. 2. Abdominopelvic CT scan

maturia was referred to urologist by gynecologist. In bimanual examination palpable mass in bladder was revealed. Transvaginal ultrasound (TVUS) developed pathological mass on posterior bladder wall. No former surgery was performed. Cystoscopic view (Fig.1) showed 3 centimeter orange-claret tumor behind bladder trigone with no clear margin from normal mucosa.

Abdominopelvic CT scan (Fig.2A, 2B, 2C) developed pathological area 62x40x20mm diameters adhering to uterus and cervix. Neither distant lesions nor ureterohydronephrosis and lymphadenopathy were observed.

Consecutive time patient was admitted to hospital for laparoscopic treatment. Before surgery ureteral double J stents were inserted for better control of ureters due to lesion localization (Fig.2B) and Foley catheter 20 Fr was left in bladder. In Trendelenburg position, we used three working trocars (1x10Fr, 2xFr) and one optical (10Fr) to enter peritoneum. The posterior bladder wall was tightly adherent to uterus so harmonic knife and scissors were used for sharp dissection. Than bladder was opened and lesion was resected with margin of unchanged bladder wall using harmonic knife. One layer running suture was applied for bladder closure. Than with 200 ml saline tightness was proofed. Redon drain was left. Blood loss was insignificant. Operation time was two hours.

Postoperative period was uncomplicated. Drain was removed on the second day. Patient was released from hospital on the third day with Foley catheter and double J stents, that were removed after 14 days.

Dienogest was administered by gynecologist. No preoperative symptoms appeared. After 4 months patient got pregnant. Pregnancy period was uncomplicated.

Discussion

Hormonal therapy should be regarded as primary treatment to control the symptoms of BE.¹⁰ However medical therapy is effective in temporarily suppressing but not ensure complete excision of lesions. This treatment is ineffective or interrupted due to adverse effects in about 30%.¹¹

Two main approaches are proposed for surgical management of BE: cystoscopic (TUR surgery) or abdominal. Only entirely removal of pathological tissue guarantee long term relief of urinary symptoms and pain. From a pathogenic point of view TUR is not an appropriate approach, as vesical nodule develops in external layer and later infiltrates the vesical wall. The excision of the whole lesion is unachievable or associate with bladder perforation.³

Partial cystectomy is the most commonly used method for the BE treatment that can be performed via laparoscopy or laparotomy. Preoperative, preventive ureteral catheterization may be advisable when the distance between the caudal margin of the endo-

metrial lesion and the interureteric ridge is less than 2 cm.¹³ The success rate increases to 100% among lesions localized in the dome.¹² Segmental bladder resection does not carry a high risk of complications. Abundant vascularization ensure appropriate suture healing and prolonged urine drainage (7–10 days) prevents fistula formation.^{1,12}

Conclusion

We find laparoscopic partial cystectomy safe and radical method for treatment bladder endometriosis, when applied by experienced surgeon. Cooperation between urologist and gynecologist is essential for excellent outcome.

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