

Case Reports

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LAPAROSCOPIC APPROACH FOR PRIMARY BLADDER ENDOMETRIOSISLuis Alonso Pacheco¹, Cesar P. Ramirez Plaza²,
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Spain.**Summary.-** OBJECTIVE: To report a case of primary bladder endometriosis treated with laparoscopic partial cystectomy.

METHODS: We report the case of a 38-y woman diagnosed of bladder endometriosis by means of cystoscopy and NMR because of cyclic catamenial pain and hematuria. A partial

cystectomy using a laparoscopic approach was performed and symptoms disappeared.

RESULTS: We report a well documented case of primary bladder endometriosis and the laparoscopic approach used for its treatment. A review of the concept and the therapeutic alternatives is presented.

CONCLUSIONS: Bladder endometriosis must be in mind when cyclic catamenial symptoms of pain and hematuria are present. When diagnosed, the laparoscopic approach must be considered the preferent option.

Keywords: Laparoscopy. Bladder. Endometriosis.**Resumen.-** OBJETIVO: presentar un caso de endometriosis vesical primaria tratada mediante cistectomía parcial por vía laparoscópica.

MÉTODOS: Presentamos el caso de una mujer de 38 años que se diagnóstico por cistoscopia y RNM de endometriosis vesical a raíz de presentar clínica de dolor y hematuria cíclica catamenial. Se realizó una cistectomía parcial por vía laparoscópica que fue definitiva.

RESULTADOS: Presentamos un caso bien documentado de endometriosis vesical primaria y su tratamiento por vía laparoscópica, así como una revisión conceptual y de las opciones terapéuticas.

CONCLUSIONES: La endometriosis vesical debe tenerse en mente ante la clínica de dolor pélvico y hematuria con perfil catamenial. Cuando se diagnóstica, el abordaje laparoscópico debe plantearse como la opción preferente.

Palabras clave: Laparoscopia. Vejiga. Endometriosis.**INTRODUCTION**

Endometriosis is defined as the presence of endometrial tissue outside the uterine cavity, with an estimated prevalence in premenopausal women of 5% to 15%. It is normally located in the pelvis, and involves the ovaries, Fallopian tubes, uterosacral ligaments and the pouch of Douglas. In 3-17% of all cases, extrapelvic involvement of the digestive viscera is seen (sigmoid colon and terminal ileum). Endometriosis in the urinary tract is very infrequent (<1%), and when it occurs it is most often located in the bladder (in 84% of all cases) (1).

We report a case of a patient diagnosed with and treated for primary bladder endometriosis (BE). Clinical, diagnostic and therapeutic considerations relating to this infrequent pathology are discussed.

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CASE REPORT

An otherwise healthy 38-year-old woman with a known diagnosis of a small submucosal myoma sought attention due to symptoms of suprapubic pain accompanied by cyclic urinary symptomatology, peaking in intensity over the days near menstruation. Gynaecological examination revealed an anteverted uterus with reduced mobility and a nodular bladder lesion that was very painful to the touch. Transvaginal ultrasound and nuclear magnetic resonance imaging showed a hypoechogenic lesion in the anterior uterine wall and posterior bladder wall (vesicouterine pouch) measuring approximately 2 cm in diameter (Figure 1 and 2). Cystoscopy revealed a bluish nodule that was friable to the touch, located near the bladder trigone and consistent with the suspected diagnosis of endometriosis (Figure 3).

Laparoscopic surgery was indicated to excise the bladder nodule. No other sites of endometriosis were detected. After dissection of the vesicouterine pouch, transmural resection of the lesion was performed, as well as cystorrhaphy with continuous intracorporeal sutures made of absorbable material (Polyglactin 910) in two layers (Fig 4). Biopsy confirmed the diagnosis of transmural bladder endometriosis. The post-operative outcome was favourable, with discharge from hospital in 48 hours, removal of the urinary catheter after 15 days and complete clinical remission seen on follow-up.

DISCUSSION

Urinary tract endometriosis is infrequent, with an estimated prevalence of <1%. When it occurs, the most frequently involved organ is the bladder (85%), followed by the ureters (10%), the kidneys (4%) and the urethra (2%). The first case of BE was reported by Judd

in 1921, and the first cystoscopic description of BE was contributed by Müller in 1927. To date, no more than 300 cases of BE have been described in the medical literature (1-3).

Three main theories have been suggested to explain BE. These include:

1) the theory of retrograde menstruation (Sampson), which surmises that endometrial tissue backs up and implants between the bladder dome and the anterior uterine wall, in the anterior fornix;

2) the theory of dissemination, due to proximity, of an adenomyoma from the anterior wall of the uterus to the bladder;

3) Donnez's theory of metaplasia, involving Müllerian remnants located in the uterovesical septum or vesicovaginal septum (4, 5). Conceptually, then, a true case of BE requires:

a) a primary nature, i.e. endometriosis occurring spontaneously in the absence of any previous potentially iatrogenic surgical procedure, for example a caesarean section; and

b) transmural disease involving, at the very least, the detrusor muscle, and only rarely reaching the bladder mucosa. This means that non-invasive implants in the prevesical peritoneum, which are frequently found in pelvic endometriosis, do not qualify.



Figure 1. Transvaginal ultrasonography showing an endometrial node bulging in the posterior wall of the vagina.

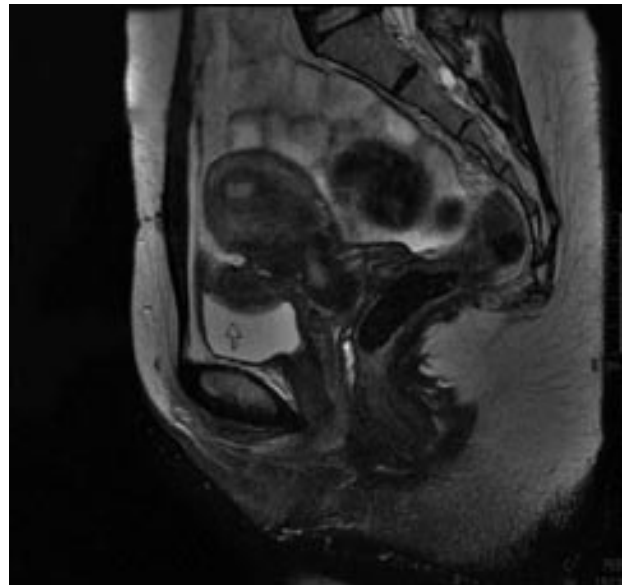


Figure 2. NRM with an T2-hyperintense endometrial lesion in the wall of the bladder.



Figure 3. Image from cystoscopy showing active bleeding coming from the endometrial node.

The presenting symptoms of BE are very similar to those of interstitial cystitis, and include suprapubic pain and mimicking symptoms such as urgent urination, polyuria and dysuria, being most intense around menstruation. The presence of cyclic haematuria, which occurs in just 20% of patients with BE, is considered pathognomonic for BE. Dysmenorrhoea, a common symptom of endometriosis, is found in 40% of all patients. Performance of a bimanual gynaecological examination usually reveals a palpable mass in the bladder that is painful to the touch, although its absence does not rule out BE (1, 6).

The initial diagnostic workup is always transvaginal or abdominal ultrasonography. When the bladder is full, the presence of a hyperechogenic, heterogeneous nodule in the posterior wall or bladder dome is confirmed with endoluminal imaging. At times due to its appearance on ultrasound it may mimic a subserous myoma. The body of the uterus is invariably anteverted. Computed Tomography (CT) and Nuclear Magnetic Resonance (NMR) imaging reveal a hyperattenuated supracervical lesion that grows toward the bladder lumen, and helps ruling out other possible sites of endometriosis that may go undetected by ultrasonography, such as the uterosacral ligaments (7).

Cystoscopy, particularly if performed during the premenstrual period, enables definitive diagnosis by revealing the typical prominent bluish submucosal lesion. The bladder mucosa is almost never ulcerated, and only menstrual congestion due to a large nodule can cause catamenial haematuria. Biopsy should be performed whenever possible to rule out epithelial or mesenchymal neoplasms. Although highly specific, sensitivity is limited (7).

Treatment of BE varies depending on the severity of the symptoms, the size and location of the lesion and the

age and reproductive plans of the patient. Due to the low prevalence of BE, no prospective studies or large retrospective series exist comparing medical treatment to surgical treatment. Contraceptive therapy is a reasonable choice when lesions are small or symptoms are mild, particularly in young women of childbearing age. Westney et al. reported a complete clinical remission of BE in 12 out of 13 patients treated with low doses of progesterone and oestrogen in different combinations. Nevertheless, symptoms usually reappear when hormonal treatment is discontinued and it must therefore be considered "palliative" (1, 8).

In general, and particularly for lesions larger than 15 mm or for very symptomatic lesions, the only curative treatment is surgery. The transurethral cystoscopic approach should be discarded as conceptually flawed, as lesions grow from outside the bladder to the inside, almost never reaching the mucosa. Therefore, neither radicality nor surgical margins can be guaranteed in resection, and recurrence is likely.

The abdominal approach is the preferred treatment. Its long-term rate of recurrence is between 0% and 8%. Abdominal entry, either by laparoscopy (LP) or laparotomy (LT), enables sufficient mobilisation of the bladder and good exposure of the vesicouterine pouch in order to perform a segmental bladder resection with free margins. This partial cystectomy will be transmural in the case of invasion of the mucosa, or extramucosal if the BE does not extend beyond the detrusor muscle. This decision is greatly facilitated by the use of cystoscopy as an adjuvant to the surgery. Chapron et al. advocate LT solely for cases requiring ureterovesical reimplantation (9).

Fedele et al. published the most numerous BE series, comprising 18 cases of LP for lesions on the bladder dome or anterior intraperitoneal bladder and 29 of LT for lesions involving the bladder base (10). Le Tohic et al. ultimately support systematic LP approach, with a decision to convert to LT in the case of any technical difficulty or impossibility. In their series, such a change was necessary in 30.4% of cases (11).

CONCLUSIONS

In conclusion, it can be affirmed that: 1) Primary BE is a rare condition but it should nonetheless be considered in patients with symptoms of cyclic, catamenial interstitial cystitis; 2) A combination of ultrasound, CAT/NMR and cystoscopy enables diagnostic screening or confirmation with a high degree of certainty; and 3) the preferred treatment should be surgery, as recent studies have reported excellent results for a laparoscopic approach combined with cystoscopy for complete excision of lesions.

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Casos Clínicos

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ASCITIS QUILOSA TRAS NEFRECTOMIA RADICAL LAPAROSCOPICA QUE PROVOCA DISTENSION ABDOMINAL

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Resumen.- OBJETIVO: Comunicar un caso de ascitis quílosa masiva como complicación tardía tras la realización de una nefrectomía laparoscópica por tumor renal.

MÉTODOS: Presentamos el caso de un varón de 62 años que ingresó por distensión abdominal importante, y mal-estar general motivado por ascitis quílosa. El diagnóstico realizado mediante ecografía y TAC abdominal con paracentesis confirmó la presencia de abundante acumulo intraperitoneal del líquido lechoso.

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