Laparoscopic Treatment of Bladder Prosthesis Exposure

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Abstract

Genital prolapse surgery is a functional surgery aimed at restoring the anatomical position and functions of the pelvic organs. Currently, the gold standard is laparoscopic surgery with a polypropylene prosthesis. This is functional surgery involving the interposition of strips and their fixation to the spine. This technique avoids the need for a vaginal opening and is therefore less prone to infectious complications and prosthesis exposure. Exposure of the prosthesis several years after insertion calls for monitoring. We present the case of a patient operated on at our level for genital prolapse using the laparoscopic lateral suspension technique with exposure of the sling three years after insertion. We describe the various lesions found and the therapeutic strategy.

Introduction

Genital prolapse is a functional surgery aimed at restoring the anatomical position and functions of the pelvic organs. Currently, the gold standard is laparoscopic surgery with a polypropylene prosthesis. This is functional surgery involving the interposition of strips and their fixation to the spine. This technique avoids the need for a vaginal opening and is therefore less prone to infectious complications and prosthesis exposure. Exposure of the prosthesis several years after insertion calls for monitoring. We present the case of a patient operated on at our level for genital prolapse using the laparoscopic lateral suspension technique with exposure of the sling three years after insertion. We describe the various lesions found and the therapeutic strategy.

Patient and Observation

We present the case of a 58-year-old multiparous G5P5 patient, postmenopausal at the age of 48, who presented with pelvic pain and macroscopic hematuria. Our patient underwent laparoscopic surgery for genital prolapse classified as C3H3R2, using a prosthetic lateral fixation technique in 2019. Clinical examination revealed a patient in satisfactory general condition, with good hemodynamic constants, and apyretic. Examination of the abdomen was soft, with no tenderness or contractures, and no lumbar contact. Examination of the vulva confirmed the urinary origin of the bleeding, and speculum examination revealed clean vaginal walls and a healthy cervix. Suprapubic and endovaginal pelvic ultrasonography revealed: an intermediate uterus in postmenopausal involution with an atrophied endometrium, with no latero-uterine mass or intraperitoneal effusion.

Figure 1: Endo-Vaginal Ultrasound, Showing the Prosthesis
The bladder is the site of an organized, hyperechoic rectangular image occupying the entire posterior part of the bladder, measuring 5 cm in length, 5.11 cm transversely and 1.6 cm thick. The intra-bladder image is devoid of Doppler signal, and renal ultrasound reveals no hydronephrosis (figure 1).

**Therapeutic Intervention**

We suspected intravesical exposure of the prosthesis. Cystoscopy revealed an inflamed, infected bladder (pus flakes) and protrusion of the polypropylene strip (figure 2).

The exploding sling required removal, and we decided to explant the prosthesis laparoscopically. The approach was sub-umbilical with three assisting trocars, and we first performed a median cystotomy opening the bladder and exposing the tape. We then mounted a double J catheter to protect the ureters from possible transfixion and postoperative inflammation.

Explantation of the prosthesis was performed as a monobloc with a cold chisel from proximal to proximal, also removing the proximal parts of the arms (figure 3).

Dissection of the inter-vesico-vaginal space enabled closure of the bladder with absorbable 2.0 thread via an overjet.

Post-operative follow-up was straightforward, with indwelling bladder catheterization for 12 days, and no clinico-biological infectious syndrome. An ultrasound scan of the kidneys was performed and returned normal; we maintained antibiotic therapy for 10 days and authorized discharge after 15 days.

At 4 months post-op, our patient presented with a fungal urinary tract infection, resistant despite a well-maintained treatment regimen, which led us to suspect the presence of a prosthetic residual infection or an infection maintained by the double J catheters.

Cystoscopic control was carried out, the bladder mucosa was still inflammatory and the double J catheters were removed (figure 4).

**Discussion**

A classic complication of prosthesis insertion during prolapse surgery is exposure of the prosthesis, whether vaginal, rectal or bladder. Rates reported in the literature vary from 0 to 13%. They are higher in cases of vaginal opening and associated total hysterectomy [4] [5].

Our patient’s laparoscopic procedure demonstrates the feasibility and low morbidity of laparoscopic removal of the prosthesis.

**Conclusion**

Explantation of an exposed intravesical prosthesis after laparoscopic cure of genital prolapse requires its removal, ideally by laparoscopy.

**Conflicts of Interest**

The authors declare no conflicts of interest.
References


