

# Conservative Treatment of a Pelvic Abscesses After a Laparoscopic Sarcopexy: Case Report

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## Abstract

## Case Report

**Background:** Ureteral injuries during pelvic surgeries, particularly following promontofixation for anterior vaginal prolapse, are noteworthy due to their frequency and potential complications. This case report highlights a novel conservative management approach for a ureteral injury associated with mesh-related infection. **Case Presentation:** We present a case of a patient who developed urinary abscesses around the mesh after undergoing a promontofixation procedure. The ureteral injury was identified, and instead of opting for surgical intervention, a double J stent was placed to manage the injury. Additionally, ultrasound-guided paracentesis was performed to drain the abscesses. Cultures revealed a multidrug-resistant strain of E. coli, sensitive to imipenem, leading to a 30-day intravenous treatment. Over the follow-up period, inflammatory markers decreased, and imaging showed a reduction in abscess size. The patient was monitored closely without the need for drainage or antibiotics, ultimately resulting in complete resolution of the abscesses after six months. **Conclusions:** This case underscores the importance of recognizing ureteral injuries in pelvic surgeries and presents a conservative management strategy that can mitigate the risks associated with surgical mesh excision. By integrating drainage, targeted antibiotics, and vigilant follow-up, clinicians can effectively manage such complications while minimizing patient morbidity.

**Keywords:** Pelvic Abscesses, Ureteral injury, Sarcopexy, Conservative treatment.

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## INTRODUCTION

Pelvic surgery represents a real threat to the ureter, in fact the pelvic portion of the ureter is most exposed to the injury in laparoscopic as in open surgery. Iatrogenic lesions secondary to gynecological and obstetrical surgery as a promontofixation are most often encountered and expose especially to a related-mesh infection [1].

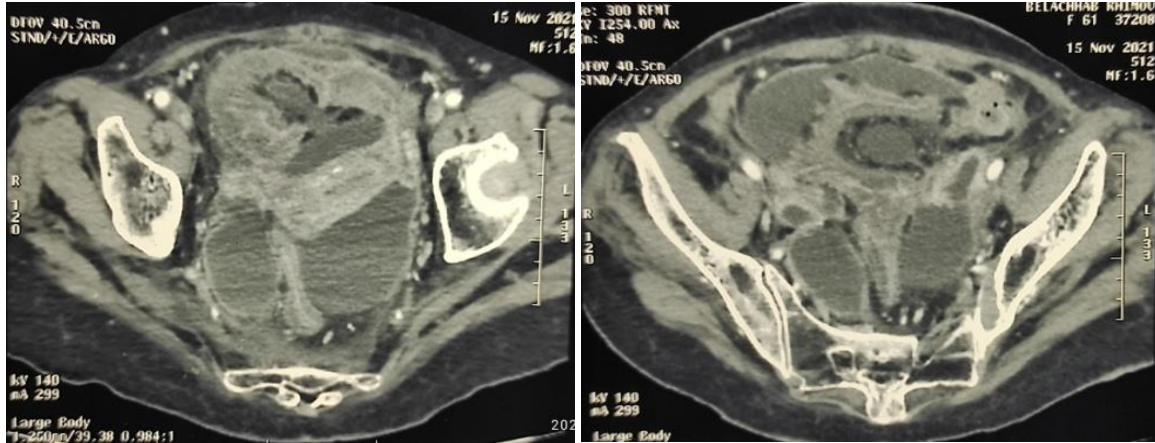
We describe herein an observation of a patient who presented with an ureteral lesion after promontofixation, complicated by an urinary abscesses around the mesh suggesting a related mesh infection which we treated by paracentesis, antibiotics and without removing the mesh.

## CASE PRESENTATION

A 65-year-old female presented with hypogastric pain, fever and chills with vomiting. The patient had a history of anterior vaginal prolapse for which she underwent in our unit a promontofixation using anterior mesh support, 10 days ago, without noticeable incident. The physical examination on admission showed an abdominal tenderness fever about 38,3°C. Blood testing finds an elevated WBC: 18.000/mm<sup>3</sup> and CRP :350mg/l. A tomography of the abdomen showed an injury of the left distal ureter with a fistula to three abscesses collections in the pelvic cavity measuring 21\*38mm, 14\*30mm, 19\*30mm, including areas with fluid collection around the hole anterior mesh, suggesting a mesh-related infection due to unrecognized iatrogenic ureteral injury. We proceed by a conservative cure by placing a double J stent for the ureter injury and to manage the infection we proceed by ultrasound guided

paracentesis to drain the collections, without removing the mesh. the cytobacteriological exam of the collections pus isolated a multidrug-resistant E-coli with sensibility to imipenem, then approximately 30-days course of intravenous Imipenem 500 mg every 8h. then inflammatory markers began to decrease, and the control

scan showed a reduce of the collections the collections were reduced to more than 50%, then the patient was just watched without any drainage or antibiotics but with a close control of the clinic-biological parameters, until complete disappearance of the collections after 6 months.



**Figure 1: Abdominal Axial tomography imaging showing pelvic collections**

## DISCUSSION

This case describes a late prosthetic infection secondary to a laparoscopic ureteral wound following mesh repair of pelvic organ prolapse.

The overall estimate of the frequency of operative lesions of the ureter is very variable according to the series analyzed, ranging from 0.5 to 30%. However, laparoscopic promontofixation surgery does not spare this organ. Stepanian *et al* reports a rate of 0.2% [2] and Claerhout *et al.*, reports 0.4% [3] of ureteral wounds during laparoscopic promontofixation.

The laparoscopic ureteral lesions are usually the result of either direct trauma to the ureter during sectioning, or to thermal necrosis secondary to proximity electrocoagulation. The new coagulation techniques (Ligasure® or Ultracision®) allow a certain reduction in operating times, but are not without risks [4].

The diagnosis is not easy, recognizing complications of laparoscopic surgery is a major problem. Their usual lack of recognition during the surgical act is one of the characteristics of laparoscopic surgery. However, an early diagnosis is essential for a rapid treatment of the lesions of ureter [4].

For Cussenot O, the diagnosis was made during the operation in 20% of cases [5], and for Benoit G in 10% of cases.[6]. In the majority of cases, these lesions are recognized postoperatively; thus, for El Ouakdi, the diagnosis was made after the first month in 55% of cases and during the first month in 37.5% of cases [6]. In our case the diagnosis of lesion was made during the first 15 days.

The most frequently observed symptoms were: flank pain, fever, ileus, hematuria and even peritonitis. After a few weeks the same symptoms can be found, associated with a palpable mass in the flank corresponding to a urinoma, or diffuse abdominal pain. Some authors report the triad of fever, hyperleukocytosis and generalized peritoneal signs [8]. Our patient presented with the majority of symptoms described in literature.

In case of an immediately recognized lesion, a simple ureteral catheterization may be sufficient [9]. For mesh-related infections, a Combined medical and surgical management, with intravenous antimicrobial agents and a complete surgical excision of the mesh, is the treatment usually recommended [10, 11], but some authors; Paton BL *et al.*, [12], and Stoppa RE *et al.*, [13], report the possibility of a salvage of the infected mesh with conservative measures, especially with limited mesh infection. In our case the ureteral injury was discovered late associated to collections, we choose to take a conservative attitude since the patient was on good general condition without comorbidity, using only a ureter catheter and parenteral antibiotics with abscesses paracentesis drainage guided by ultrasonography, since there is a regression of abscesses by 50%, then only follow up attitude without antibiotics since a complete disappearance of the abscesses on imaging after 3 months with réduction of the biological parameters with clinical improvement. Yuo-Chen Kuo and all report that the conservative attitude is an effective strategy and achieve to the mesh salvage. It resents a viable and less morbid option compared with surgical mesh excision, that's why we prefer to advise urologists to be more attentive and try to be the most conservative possible, and should be weighed against the morbidity associated with surgery.

## CONCLUSION

Infectious complications are described complications of female genital prolapse surgery; (laparoscopic and open surgery) promontofixation. In well selected patients, the conservative attitude can be chosen on condition of ensuring the most complete paracentesis drainage and an adapted antibiotics, and as well a close clinical, biological and radiological follow-up.

## DECLARATIONS

### Ethics approval and consent to participate:

Tangier Mohammed VI University Hospital does not require ethical approval for reporting individual cases or case series.

### Consent for publication

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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## REFERENCES

1. Symmonds, R. E. (1976). Ureteral injuries associated with gynecologic surgery: prevention and management. *Clin Obstet Gynecol*, 19(3), 623-644. PubMed | Google Scholar
2. Brandes, S., Coburn, M., Armenakas, N., & McAninch, J. (2004). Diagnosis and management of ureteric injury: an evidence-based analysis. *BJU Int*, 94(3), 277-89. PubMed | Google Scholar
3. Cussenot, O., Ferrier, X., & Le Duc, A. (1991). Lésions opératoires de l'uretère. *EMC*, 18(6), 197-203.
4. Le risque urétéral en coelio-chirurgie Frédéric ADHOUTE, Jean-Louis PARIENTE, Michel LE GUILLOU, Jean-Marie FERRIERE. *Service d'Urologie, CHU Pellegrin, Bordeaux, France. Progrès en Urologie* (2004), 14, 1162-1166.
5. Tostain, J. (1992). Les lésions uréthro-vésicales après chirurgie gynécologique; intérêt du diagnostic précoce. *J Gynecol Obstet Biol Reprod*, 21, 519-523. PubMed | Google Scholar
6. Benoit G, Boccon Gibod L, Teyssier P, Steg A. Traumatismes iatrogènes de l'uretère. *Ann Urol*. 1983;17(6):332-336.
7. Cussenot, O., Ferrier, X., & Le Duc, A. (1991). Lésions opératoires de l'uretère. *EMC*, 18(6), 197-203.
8. Lukacz, E. S., & Nager, C. W. (2001). Ureteral injury presenting with hyponatremia. *Obstet Gynecol*, 98, 974-976.
9. Cormio, L. (1995). Ureteric injuries. Clinical and experimental studies. *Scand J Urol Nephrol Suppl*, 171, 1-66.
10. Mulligan, J. M., Cagiannos, I., Collins, J. P., & Milward, S. F. (1998). Ureteric junction disruption secondary to blunt trauma: excretory phase imaging (delayed films) should help prevent a missed diagnosis. *J Urol*, 159, 67-70.
11. Karmouni, T., Patard, J. J., Bensalah, K., Manunta, A., Guillé, F., & Lobel, B. (2001). Urological management of iatrogenic trauma of the ureter. *Progrès en Urologie*, 11, 642-646.
12. Cormio, L. (1995). Ureteric injuries. Clinical and experimental studies. *Scand J Urol Nephrol Suppl*, 171, 1-66.
13. Damian, J. C., & Chapple, C. (2000). Principles of ureteric reconstruction. *Current Opinion in Urology*, 10, 207-212.