AUCTORES
Globalize your Research

Journal of Clinical Case Reports and Studies

Imane Boujguenna *

Open Access

Case Report

Inguino-Ureteral Hernia: A Rare Diagnostic Challenge

Abbas Riyad [1], Ghita El Baroudi [1], Imane Boujguenna [2*]

[1] Faculty of Medicine and Pharmacy of Laayoune, Ibnou Zohr Agadir University. Laayoune-Morocco.

[2] Faculty of Medicine and Pharmacy of Guelmim - Ibnou Zohr Agadir University. Guelmim- Morocco.

***Corresponding Author:** Imane Boujguenna, Faculty of Medicine and Pharmacy of Guelmim - Ibnou Zohr Agadir University. Guelmim- Morocco.

Received date: May 26, 2025; **Accepted date:** June 03, 2025; **Published date:** June 10, 2025

Citation: Abbas Riyad, Ghita El Baroudi, Imane Boujguenna, (2025), Inguino-Ureteral Hernia: A Rare Diagnostic Challenge**,** *J, Clinical Case Reports and Studies*, 6(5); **DOI**:10.31579/2690-8808/258

Abstract

Inguino-ureteral hernia is an extremely rare condition that is difficult to diagnose and often identified intraoperatively. There are two anatomopathological types: extraperitoneal and paraperitoneal. When symptomatic, treatment is based on relieving the obstruction, either endoscopically or surgically.

We report the case of a 73-year-old male patient admitted to the emergency department for right renal colic. Clinical examination revealed a strangulated right inguinoscrotal hernia. Contrast-enhanced abdominal CT scan showed the aforementioned hernia along with mild ureterohydronephrosis, likely due to ureteral entrapment within the hernia. Surgical management consisted of the reduction of the herniated viscera, including the ureter, followed by hernia repair using the Lichtenstein technique.

Our aim is to shed light on this under-recognized entity and to recommend cross-sectional imaging when upper urinary tract symptoms are associated with an inguinal hernia.

Key Words: hernia; ureter; extraperitoneal; paraperitoneal

Introduction

An inguinal hernia is defined as the protrusion of part of the abdominal organs through a natural area of weakness. Commonly herniated structures include the omentum, small intestine, appendix, and colon. In contrast, the ureter is very rarely found within a hernia sac. This unusual situation can be perplexing for clinicians and should be suspected and investigated whenever upper urinary tract symptoms are associated with an inguinal hernia.

Case Presentation

A 73-year-old male patient with a history of type II diabetes managed with insulin was admitted to the emergency department for a first episode of right-sided non-obstructive renal colic. Clinical examination revealed a conscious and hemodynamically stable patient with tenderness in the right lumbar fossa, abdominal distension, and a strangulated-appearing right inguinoscrotal hernia. Laboratory tests were unremarkable.

A contrast-enhanced abdominopelvic CT scan was performed, revealing mild small bowel distension upstream of a right inguinal hernia with signs of mild ureterohydronephrosis, likely due to intra-hernial ureteral entrapment.

Given the digestive emergency, the patient was taken to the operating room. Under spinal anaesthesia, a right low inguinal incision was made. Surgical exploration revealed a strangulated right indirect inguinoscrotal hernia containing suffering but viable small bowel. Notably, the ureter was identified on the posterolateral aspect of the hernia sac, confirming a diagnosis of paraperitoneal inguino-ureteral hernia (Figure 1).

The surgical procedure involved reduction of the herniated contents, careful repositioning and reduction of the ureter, and hernia repair using the Lichtenstein technique with No. 3 round needle mersuture.

Postoperative recovery was uneventful, with resolution of right flank pain. The patient was discharged on postoperative day 3.

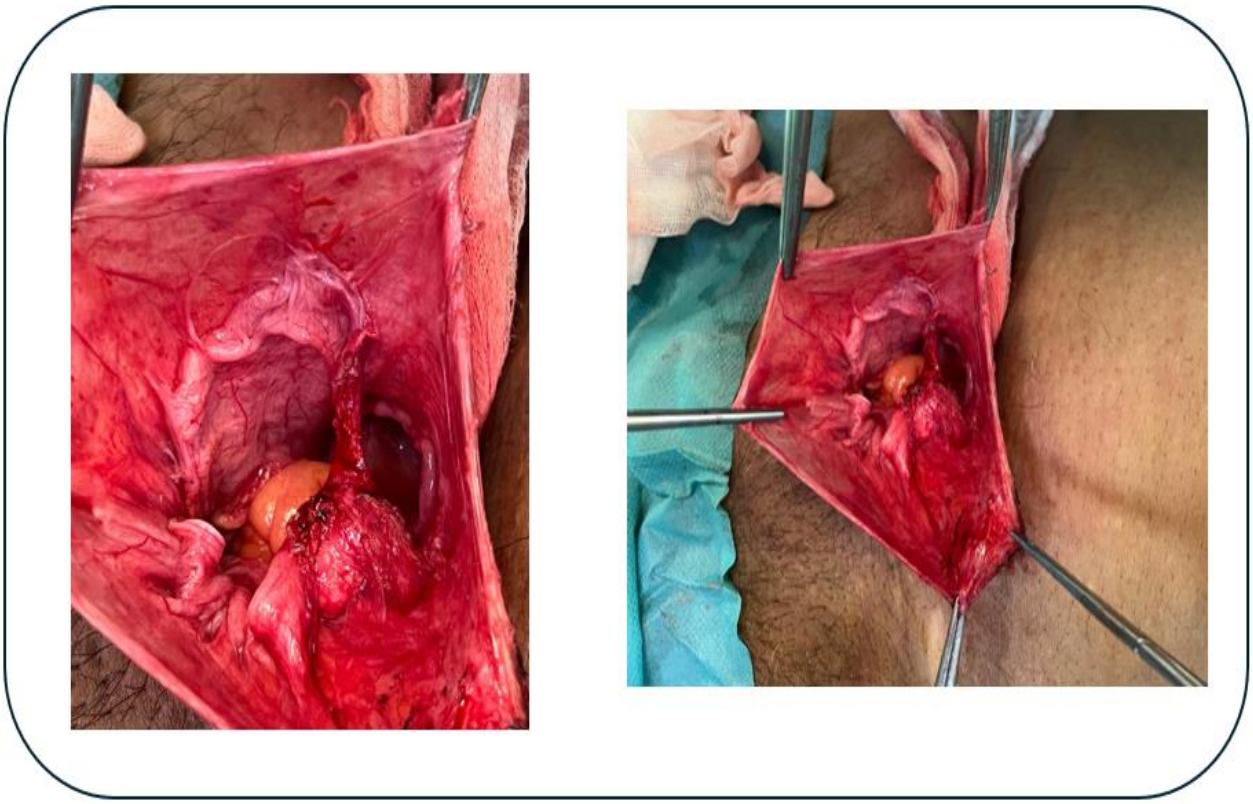

Figure 1: Intraoperative view of the inguino-ureteral hernia showing the stretched ureter adherent to the hernia sac

Discussion

The ureter can be found in various hernial orifices, including inguinal, femoral, sciatic, and even diaphragmatic openings [1]. This is a rare condition, with only about 150 cases reported up to 2017 [2]. The first known case was discovered during autopsy by Leroux in 1880, followed by the first intraoperative identification by Reichel and the first preoperative diagnosis by Doumarshkin in 1937 [3].

Two anatomopathological types of inguino-ureteral hernias have been described. The **paraperitoneal type**, accounting for 80% of cases, involves stretching of the ureter, which adheres to the posterolateral portion of the hernia sac [4]. In 20% of cases, the **extraperitoneal type** is present, where retroperitoneal fat slides into the hernia, dragging the ureter and spermatic cord with it, without a true hernia sac [5]. In 80% of cases, inguino-ureteral hernias are **indirect inguinal hernias** [6].

Clinically, this condition typically presents as renal colic and, if left untreated, can progress to sepsis [7]. Preoperative diagnosis is crucial to avoid surgical complications due to unawareness of this entity. Diagnosis is based on clinical suspicion and imaging, especially abdominal CT scanning.

The surgical approach should be **conservative**, and the procedure may be performed via laparotomy (the traditional approach), laparoscopy, or, more recently, robotic surgery [2,8]. Treatment consists of **surgical repositioning of the ureter**, provided there is no irreversible damage [5]. In some cases, **ureteral reconstruction** is necessary, involving segmental resection and end-to-end anastomosis or ureterovesical reimplantation [9].

Conclusion

Although extremely rare, the association of urinary symptoms with an inguinal hernia should raise suspicion for an inguino-ureteral hernia. Recognizing this condition preoperatively is essential to avoid unexpected findings and complications during surgical repair.

Acknowledgements

To anyone who has participated in the care of this patient directly or indirectly

Conflicts of interest

None declared.

Funding

No funding sources

Ethical approval

ethics approval was not required for this study

Consent for publication

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

References

1. Sidiqi MM, Menezes G. (2018) Asymptomatic herniation of ureter in the routine inguinal hernia: A dangerous trap for general surgeons. *International Journal of Surgery Case Reports*., 49:244-246.
2. Beebe K, Muhonen J, Giuseppucci P, Esper C. (2021) A Rare Case of an Inguinal Hernia-Containing (Extraperitoneal) Ureter. *Am J Case Rep* [Internet]. 2 août [cité 14 avr2025]; 22.
3. Giuly J, François G, Giuly D, Leroux C, Nguyen-Cat R. (2003), Intrascrotal hernia of the ureter and fatty hernia. *Hernia*. mars;7(1):47-49.
4. Bertolaccini L, Giacomelli G, Bozzo RE, Gastaldi L, Moroni M. (2005), Inguino-scrotal hernia of a double district ureter: case report and literature review. *Hernia*. oct; 9(3):291-293.

5. Giuly J, Francois G, Giuly D, Leroux C, Nguyen Cat R. (2002), Hernie urétérale intrascrotale. Annales de Chirurgie. mars;127(3):218-220.
6. Yahya Z, Al-habbal Y, Hassen S. (2017), Ureteral inguinal hernia: an uncommon trap for general surgeons. *BMJ Case Reports*. 8 mars; bcr2017219288.
7. Speeg JS, Vanlangendonck RM, Fusilier H, Richardson WS. (2009), An unusual presentation of a sciatic hernia. Am Surg. nov; 75(11):1139-1141.
8. Lakshmi Narayanan P, C.D. N, Sekar V, Vadyala AR. (2020), Laparoscopic approach to ureteroinguinal hernia. *International Journal of Surgery Case Reports*.; 77:161-164.
9. Destan C, Durand X. (2019), Prise en charge d'une hernie de Lindbom/hernie urétérosciatique. *Journal de Chirurgie Viscérale*. sept; 156(4):396-398.

DOI:10.31579/2690-8808/254