INTERNATIONAL JOURNAL OF HEALTH & MEDICAL RESEARCH

ISSN(print): 2833-213X, ISSN(online): 2833-2148

Volume 05 Issue 01 January 2026

DOI : 10.58806/ijhmr.2026.v5i1n07

Page No. 37 - 39

From a Presumed Indirect Inguinal Hernia to a Confirmed Saddlebag Hernia: The Diagnostic Value of Laparoscopy

Ettaoussi abdelhak[1], Benzidane Kamal[2], Zalarh Fadoua[3*], Bouali Ichrak[4], Kamal Khadija[5], Majd Abdessamad[6], Bouali Mounir[7], Elbakouri Abdelillah[8], Khaleq Khalid[9], El Hattabi Khalid[10]

[1,2,3,4,5,6,7,8,10]Department of General Surgery, Ibn Rochd Hospital, Hassan II University, Faculty of Medicine and Pharmacy, Tarik Ibn Ziad Street, Morocco

[9]Department of Anesthesia and Resuscitation, CHU Ibn Rochd, Casablanca, Morocco

ABSTRACT: Inguinal hernia repair is one of the most frequently performed procedures in general surgery. Over recent decades, surgical management has evolved from tissue-based repairs to tension-free mesh techniques and, more recently, to minimally invasive approaches such as laparoscopy, which have demonstrated advantages in terms of postoperative pain, hospital stay, and recovery time.

We report the case of a 36-year-old man with a presumed right indirect inguinal hernia evolving for two years. A laparoscopic approach using the TAPP technique was chosen. Intraoperative exploration revealed a combined direct and indirect inguinal hernia, also known as a saddlebag (pantaloon) hernia. A polypropylene mesh was placed in the preperitoneal space without intraoperative complications. Postoperative recovery was uneventful, with no recurrence or complications during follow-up.

Laparoscopy plays a crucial diagnostic and therapeutic role in inguinal hernia surgery. It allows accurate identification of complex hernia types that may be underestimated on clinical examination and enables optimal mesh placement with favorable postoperative outcomes.

KEYWORDS: Pantaloon hernia, Saddlebag hernia, Romberg hernia, laparoscopy ,Minimally invasive surgery, TAPP

INTRODUCTION

Inguinal hernias are among the most frequent clinical conditions encountered in general surgery. Consequently, surgical repair—whether elective or emergency—is required in most cases to relieve symptoms caused by hernias [1].

Inguinal hernia surgery has evolved from tissue-based herniorrhaphy techniques to tension-free mesh repairs and, over recent decades, to minimally invasive procedures such as laparoscopic transabdominal preperitoneal repair (TAPP) and totally extraperitoneal repair (TEP). Reported advantages of laparoscopic repair include reduced postoperative pain, shorter hospital stay, and faster recovery [2].

We report the case of a 36-year-old patient engaged in physically demanding work, presenting with an inguinal hernia managed laparoscopically. This case highlights the contribution of laparoscopy to precise anatomical assessment and optimal hernia repair.

CASE PRESENTATION

A 36-year-old man with no significant past medical history was admitted for a right uncomplicated indirect inguinal hernia evolving over two years, with a hernia neck measuring 2 cm. He worked as a merchant, reported heavy lifting, was a chronic smoker, and used cannabis. Other hernia orifices were free.

Given the advantages of a minimally invasive approach, laparoscopic surgery was selected. The patient was placed in the supine position under general anesthesia. After preparation of the operative field, a laparoscopic approach was performed using the TAPP technique.

Three trocars were inserted: a 10-mm umbilical trocar for the camera and two 5-mm trocars in the right and left flanks. Laparoscopic exploration revealed a combined direct and indirect inguinal hernia (“saddlebag hernia”), with necks measuring 1.5 cm and 2 cm, respectively (figure 1).

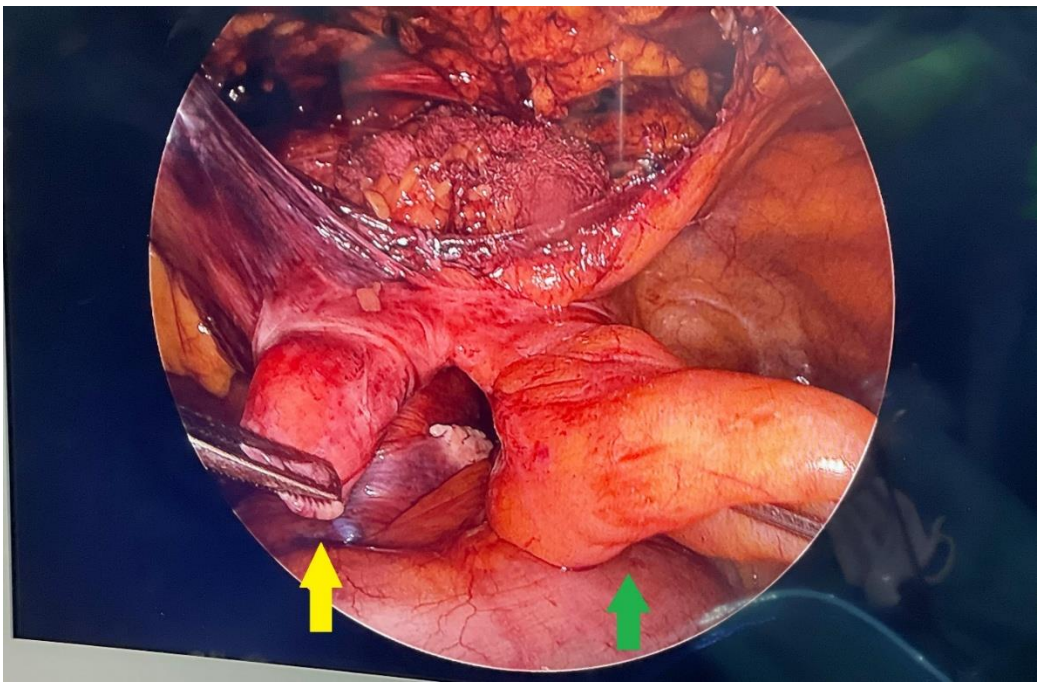

Figure 1: Intraoperative image showing a combined inguinal hernia with a direct hernia (green arrow) and an indirect hernia (yellow arrow).

A polypropylene mesh was placed in the preperitoneal space (figure 2).

Figure 2: Intraoperative image after placement of the polypropylene mesh in the preperitoneal space.

The procedure was uneventful. Postoperative recovery was uncomplicated, and the patient was discharged on postoperative day 1. During follow-up, no complications or signs of hernia recurrence were observed.

DISCUSSION

Inguinal hernias occur in approximately 1–5% of the general population, and their repair represents the most commonly performed procedure in general surgical practice [3]. In the United States, nearly 800,000 inguinal hernia repairs are performed annually, and approximately 20 million worldwide [4].

Inguinal hernias are commonly classified as either direct or indirect, depending on whether the hernia sac protrudes directly through the posterior wall of the inguinal canal (direct hernia) or passes through the internal inguinal ring along the spermatic cord, following the course of the inguinal canal (indirect hernia) [5].

Selecting the optimal technique for inguinal hernia repair remains a major challenge. The ideal approach should be associated with a low risk of complications, particularly postoperative pain and recurrence, be relatively easy to master, allow rapid recovery, ensure consistent outcomes, and be cost-effective. The choice of technique also depends on hernia characteristics, type of anesthesia, surgeon experience and preference, as well as available logistical resources.

From a Presumed Indirect Inguinal Hernia to a Confirmed Saddlebag Hernia: The Diagnostic Value of Laparoscopy

More than 20 years after laparoscopy was introduced as a therapeutic option for one of the most common surgical conditions—inguinal hernia—the choice between a transabdominal preperitoneal (TAPP) approach and a totally extraperitoneal (TEP) approach remains highly controversial [4].

The laparoscopic approach provides detailed anatomical visualization, allowing accurate identification of the hernia type [6]. Both TEP and TAPP techniques exploit the preperitoneal space located above the peritoneum and beneath the transversalis fascia, known as the Bogros space. In the TAPP approach, access is gained through the peritoneal cavity, with closure of the peritoneal flap using sutures or tacks, whereas in the TEP approach, the preperitoneal space is accessed via an infraumbilical incision without entering the peritoneal cavity [7].

TEP and TAPP are the two most commonly used laparoscopic procedures for inguinal hernia repair [8]. Both approaches utilize larger meshes than those used in open anterior repair to reinforce the inguinal region and achieve parietalization of the spermatic cord structures [9].

Numerous previous studies comparing laparoscopic and open mesh repair for inguinal hernia have demonstrated that laparoscopic repair is associated with significantly less postoperative pain, shorter hospital stay, and earlier return to work [3].

According to the literature, some studies report longer operative times for laparoscopic hernia repair compared with open repair, whereas others report comparable durations. Published data also emphasize that laparoscopic hernia surgery involves a longer learning curve [10].

CONCLUSION

This case highlights the diagnostic value of laparoscopy in inguinal hernia repair, particularly in complex or combined hernias such as saddlebag hernias. The laparoscopic TAPP approach provides excellent anatomical visualization, allowing precise differentiation between direct and indirect components that may not be accurately diagnosed preoperatively

REFERENCES

1) Doudakmanis C, Kolla C, Bouliaris K, Efthimiou M, Koukoulis GD. Laparoscopic bilateral inguinal hernia repair: Should it be the preferred technique? World J Methodol. 2022 Jul 20;12(4):193-199. doi: 10.5662/wjm.v12.i4.193. PMID: 36159094; PMCID: PMC9350731
2) Hidalgo, N.J., Guillaumes, S., Bachero, I. *et al.* Trends and predictors of laparoscopic bilateral inguinal hernia repair in Spain: a population-based study. *Surg Endosc* **37**, 4784–4794 (2023). https://doi.org/10.1007/s00464-023-09967-y
3) Elmessiry MM, Gebaly AA (2020) Laparoscopic versus open mesh repair of bilateral primary inguinal hernia: A three-armed randomized controlled trial. Ann Med Surg (Lond) 59:145–150. https://doi.org/10.1016/j.amsu.2020.08.055
4) Barta, B.; Dumitras ,, M.; Bucur, S ,.; Giuroiu, C.; Zlotea, R.; Constantin, M.-M.; M˘adan, V.; Constantin, T.; Iorga, C.R. Extraperitoneal Laparoscopic Approach in Inguinal Hernia—The Ideal Solution?. J. Clin. Med. 2022, 11, 5652. https://doi.org/10.3390/ jcm11195652
5) Jenkins JT, O'Dwyer PJ. Hernies inguinales. BMJ. 2 février 2008 ; 336(7638):269-72. doi : 10.1136/bmj.39450.428275.AD. PMID : 18244999 ; PMCID : PMC2223000.
6) Furtado M, Claus CMP, Cavazzola LT, et al. Systemization of laparoscopic inguinal hernia repair (TAPP) based on a new anatomical concept: inverted Y and five triangles. Arq Bras Cir Dig 2019;32:e1426.
7) XIE, J., KOO, D., LEE, M., SUGIYAMA, G.. The evolution of minimally invasive inguinal hernia repairs. Annals of Laparoscopic and Endoscopic Surgery, North America, 9, apr. 2024. Available at: https://ales.amegroups.org/article/view/9928
8) Hidalgo NJ, Guillaumes S, Bachero I et al (2023) Bilateral inguinal hernia repair by laparoscopic totally extraperitoneal (TEP) vs. laparoscopic transabdominal preperitoneal (TAPP). BMC Surg 23:270. https://doi.org/10.1186/s12893-023-02177-2
9) Utiyama, Edivaldo Massazo[1] ; Damous, Sérgio Henrique Bastos[2,] ; Tanaka, Eduardo Yassushi[2] ; Yoo, Jin Hwan[2] ; de Miranda, Jocielle Santos[2] ; Ushinohama, Adriano Zuardi[2] ; Faro, Mario Paulo Jr[2] ; Birolini, Claudio Augusto Vianna[2]. Early assessment of bilateral inguinal hernia repair : A comparison between the laparoscopic total extraperitoneal and Stoppa approaches . Journal de la chirurgie à accès minimal 12(3):p 271-277, juillet-septembre 2016. | DOI : 10.4103/0972-9941.158957
10) Shah, M.Y.; Raut, P.; Wilkinson, T.R.V. Agrawal V-Surgical outcames of laparoscopic total extraperitoneal (TEP) inguinal hernia repair compared with Lichtenstein tension free open mesh inguinal hernia reapir: A prospective randomized study. Medicine 2022, 101, e29746.