

REVIEW

Evolution and challenges in the treatment of inguinal hernias

Evolución y desafíos en el tratamiento de las hernias inguinales

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ABSTRACT

The study addressed inguinal hernias as a frequent cause of surgical intervention in adults, focusing on their classification, risk factors and the main surgical treatment techniques. It explained that these hernias could be divided into direct, indirect and crural hernias, according to their anatomical location. It analysed that recurrent hernias arose after previous interventions, influenced by technical factors or patient conditions such as age, chronic respiratory diseases or smoking. It also explained that surgical treatment had evolved, highlighting two main methods: open surgery and laparoscopic surgery. The latter offered advantages such as less postoperative pain and faster recovery, although it had certain limitations in patients with extensive surgical histories. Finally, he concluded that the choice of treatment should be individualised, assessing the risks and benefits on a case-by-case basis.

Keywords: Inguinal Hernia; Surgical Techniques; Laparoscopy; Risk Factors; Personalised Assessment.

RESUMEN

El estudio abordó las hernias inguinales como una causa frecuente de intervención quirúrgica en adultos, centrándose en su clasificación, factores de riesgo y las principales técnicas de tratamiento quirúrgico. Explicó que estas hernias podían dividirse en directas, indirectas y crurales, según su localización anatómica. Analizó que las hernias recidivadas surgieron tras intervenciones anteriores, influidas por factores técnicos o condiciones del paciente como la edad, enfermedades respiratorias crónicas o el tabaquismo. También expuso que el tratamiento quirúrgico había evolucionado, destacando dos métodos principales: la cirugía abierta y la laparoscópica. Esta última ofreció ventajas como menor dolor postoperatorio y recuperación más rápida, aunque presentó ciertas limitaciones en pacientes con antecedentes quirúrgicos extensos. Finalmente, concluyó que la elección del tratamiento debía individualizarse, valorando riesgos y beneficios según cada caso.

Palabras clave: Hernia Inguinal; Técnicas Quirúrgicas; Laparoscopia; Factores de Riesgo; Evaluación Individualizada.

INTRODUCTION

Inguinal hernias represent one of the most common causes of surgical intervention in adults due to their high prevalence and the discomfort they generate. Their clinical and surgical approach has been the subject of numerous studies to improve postoperative outcomes and reduce recurrence rates. In this context, it is essential to understand their classification, the associated risk factors, the different surgical techniques available, and their advantages, limitations, and possible complications. This review aims to provide an updated and

comparative view on managing inguinal hernias, especially those with recurrence after surgery.

DEVELOPMENT

Inguinal hernias are one of the most frequent surgical pathologies in the adult population, characterized by the protrusion of abdominal contents through a defect in the inguinal wall. They can be classified as direct, indirect, and crural according to their anatomical location and the trajectory of the hernial sac.⁽¹⁾ A weakness in Hesselbach's Triangle produces direct hernias, while indirect hernias follow the path of the inguinal canal through the deep inguinal ring. Crural hernias, on the other hand, emerge below the inguinal arch.⁽¹⁾

A recurrent inguinal hernia reappears after having been treated surgically. This phenomenon may be due to technical factors if the recurrence occurs in the short term or to factors such as weight gain or physical exertion if it occurs later.⁽²⁾ Risk factors for its development include aging and collagen alterations, family history, excessive physical exertion, chronic cough, constipation, benign prostatic hyperplasia, smoking, chronic lung diseases such as COPD, and increased intra-abdominal pressure.^(3,4,5)

The surgical treatment of inguinal hernias has evolved. Currently, the two most common techniques are open hernioplasty, such as the Lichtenstein technique, and laparoscopic, which can be performed transabdominal preperitoneal (TAPP) or extraperitoneal (TEP).⁽⁶⁾ The choice between one and the other depends on patient characteristics, surgeon experience, and hernia conditions.⁽⁷⁾

Several studies have compared the postoperative results between both surgical methods. It has been shown that, although the laparoscopic technique usually requires longer operative time, it offers significant advantages in terms of less postoperative pain, faster recovery, and shorter hospitalization time.^(8,9,10) Moreover, this technique allows for addressing bilateral hernias in a single procedure with better anatomical preservation and is especially useful in recurrent cases.⁽¹¹⁾

However, laparoscopy presents certain limitations in patients with multiple previous abdominal surgeries due to the risk of adhesions and technical complications.⁽⁷⁾ It has also been observed that some patients, particularly very thin patients, may experience chronic pain due to the placement of tackers in the mesh fixation.^(12,13,14)

In terms of complications, both open and laparoscopic surgery present risks such as seroma formation, infection, chronic pain, and, in severe cases, strangulation of the hernial contents, which may compromise blood flow and require immediate intervention.^(4,6,15)

Thus, although the laparoscopic technique offers advantages in terms of recovery and postoperative comfort, the decision regarding the surgical approach should be individualized, considering the patient's clinical conditions, the experience of the surgical team, and the presence of previous complications or recurrences.

CONCLUSIONS

The management of inguinal hernias, especially in recurrent cases, requires a comprehensive evaluation that considers both the patient's characteristics and the surgical team's experience. Although laparoscopy has shown significant benefits in terms of recovery and reduced postoperative pain, it is not without limitations and potential complications. The decision on the most appropriate technique should be individualized, prioritizing patient safety and effectiveness. The continuous evolution of surgical techniques and the personalized approach remain key to optimizing the results in treating this pathology.

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FINANCING

None.

CONFLICT OF INTEREST

None.

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