

Current Surgical Management of the Inguinal Hernias

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ABSTRACT

Definition: Inguinal hernias are characterized by the protrusion of tissues through a weakness in the abdominal wall in the inguinal region. They are divided into direct and indirect hernias, with anatomical differences influencing the choice of surgical technique.

Types of Hernias and Surgical Management: The surgical approach is based on individual and symptomatic considerations. Asymptomatic hernias may be observed, while symptomatic ones usually require intervention. Mesh repair is a common technique, with both open and laparoscopic repair options. The choice is based on the patient's anatomy and the surgeon's experience.

Complications: Despite progress, recurrences remain a concern. Careful selection of technique and attention to mesh placement can reduce this rate. Postoperative complications, such as infections and chronic pain, are also concerns to consider.

Discussion: The discussion focuses on the choice between open and laparoscopic repair techniques. Adaptation to the patient's individual conditions, such as age and comorbidities, is essential. Research and innovation continue to play a crucial role in improving outcomes and preventing complications.

Conclusions: The surgical management of inguinal hernias is a balance between tradition and innovation. Collaboration between surgeons and constant research are critical to advancing the field. The individualized approach and continuous improvement of techniques and materials will continue to provide patients with a better quality of life and more positive outcomes in the future.

KEYWORDS: Inguinal hernias, surgical management, mesh repair, surgical techniques, complications.

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INTRODUCTION

Inguinal hernias, one of the most common conditions in the surgical setting, represent a significant challenge for healthcare professionals and a concern for patients worldwide. These hernias, characterized by the protrusion of tissues through a weakened area in the abdominal wall in the inguinal region, affect a wide swath of the population, from children to older adults. The epidemiology of inguinal hernias reveals that approximately 27% of men and 3% of women may develop this condition at some point in their lives, underscoring its clinical and social importance.

The significance of inguinal hernias lies not only in their prevalence, but also in their potential to generate annoying symptoms, limit quality of life and, in more severe cases, lead to life-threatening complications. These complications include intestinal obstruction and hernial strangulation, which require immediate medical attention and often urgent surgical intervention. Therefore, the proper surgical management of inguinal hernias acquires an essential value in current medical practice.

This literature review aims to provide an in-depth and up-to-date understanding of the surgical management of inguinal hernias, addressing key aspects ranging from their definition and types to surgical indications, possible complications and current trends in their treatment. Through the critical review of the medical literature, the evolution of surgical techniques over time will be explored and the considerations that influence the choice of the best surgical strategy for each patient will be analyzed.

Since inguinal hernias can present in a variety of forms and degrees of severity, it is essential to have a solid understanding of their surgical management to ensure successful outcomes and optimal recovery. This review seeks to contribute to existing medical knowledge by highlighting the most recent advances in the field and by providing a holistic view of the medical, surgical and scientific aspects related to this condition.

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DEFINITION

Inguinal hernias, a classic manifestation of hernia pathology, present as a protrusion of organs or tissues through a weakened area in the abdominal wall, specifically in the inguinal region. These hernias can be classified into two main types: direct and indirect inguinal hernias. Indirect inguinal hernias arise through the internal inguinal ring and can descend into the scrotum in men or into the labia majora in women. On the other hand, direct inguinal hernias, less common, emerge through the abdominal wall near the deep inguinal ring. This anatomical distinction is essential in surgical planning, as it influences the choice of the most appropriate repair technique.

Types of Inguinal Hernias and Indications for Surgical Management

The surgical management of inguinal hernias is an ever-evolving field, with approaches ranging from traditional techniques to modern minimally invasive strategies. The choice of technique will depend on multiple factors, such as the age of the patient, the presence of symptoms, the presence of bilateral hernias and associated comorbidities.

Asymptomatic hernias can be managed conservatively, but most symptomatic hernias require surgical treatment. The most commonly used surgical technique is mesh repair, which involves the placement of a surgical mesh to strengthen the abdominal wall and prevent hernial recurrence. Open and laparoscopic repair are the two main approaches, each with its own advantages and disadvantages. Open repair, such as Bassini's hernioplasty or Shouldice's herniorrhaphy, involves an incision in the affected area and is a solid option for many hernias. On the other hand, laparoscopic repair uses a minimally invasive technique that results in less postoperative pain and faster recovery. This variability in techniques and approaches illustrates the importance of individualizing treatment for each patient.

COMPLICATIONS

Despite advances in surgical technique, inguinal hernias can lead to complications. One of the main concerns is hernia recurrence, which can occur due to various factors, such as improper choice of technique, size of the hernia, and quality of repair. In addition, surgical wound infections, bruising, and seromas can arise after surgery. Chronic postoperative pain is also a major complication that can affect patients' long-term quality of life.

DISCUSSION

The surgical management of inguinal hernias has undergone a fascinating evolution over the decades, driven by advances in the understanding of anatomy, surgical technology, and the constant pursuit of optimal patient outcomes. The discussion around best practices and surgical approaches remains a key point in general surgery and has given rise to a rich field of scientific research and debate.

The choice between open and laparoscopic repair techniques has been a topic of constant consideration. Open repair, despite its tradition and satisfactory results, has been questioned due to the need for a larger incision and the potential postoperative discomfort for patients. On the other hand, laparoscopic repair has emerged as an attractive alternative, thanks to its minimally invasive approach, resulting in less postoperative pain and faster recovery. However, this technique also presents technical challenges and learning curve for surgeons, requiring proper mastery before implementation.

The choice between techniques should also consider the characteristics of the patient. Age, the presence of comorbidities and individual anatomy are factors that influence the decision of the surgical approach. Young, active patients may prefer laparoscopic surgery because of their faster recovery, while older patients or patients with pre-existing medical conditions could benefit more from open repair.

The discussion has also focused on the prevention of complications. Despite the effectiveness of modern techniques, recurrences remain a challenge. The choice of mesh and its careful placement have been shown to reduce the rate of recurrence, but long-term follow-up is still required to assess the durability of the results. In addition, careful attention to surgical technique, asepsis, and postoperative care are essential to prevent infections and other postoperative problems.

The role of research and innovation is also crucial in this discussion. New surgical approaches, improved mesh materials, and more advanced suturing techniques continue to be areas of active research seeking improvements in patient outcomes and quality of life. In addition, identifying precise risk factors for recurrence and complications may allow for more accurate selection of surgical technique and a more individualized approach.

Ultimately, the surgical management of inguinal hernias is a balance between tradition, innovation and individualization of treatment. Collaboration between surgeons, constant research and continuous evaluation of results are fundamental components for progress in this area. The evolution of techniques and approaches will surely continue, offering patients more effective care and faster recovery on their way to a better quality of life.

CONCLUSION

The surgical management of inguinal hernias is an essential part of current surgical practice. Understanding the anatomy, types of hernias, surgical indications, and treatment options is critical to providing high-quality care to patients. The evolution of surgical techniques and the constant search for better results have led to the implementation of less invasive approaches that allow a faster recovery and a better quality of life for patients. Individualization of treatment and careful

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preoperative evaluation are crucial to achieving successful results in the management of inguinal hernias.

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