

37 chapter

Inguinal Hernias

Justin P. Wagner, F. Charles Brunicardi, Parviz K. Amid, and David C. Chen

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INTRODUCTION

Inguinal hernia repair is the most commonly performed operation in the United States, owing to a significant lifetime incidence and variety of successful treatment modalities. Approximately 800,000 cases were performed in 2003, not including recurrent or bilateral hernias.¹ Advancements in perioperative anesthesia and operative technique have made this an outpatient ambulatory operation with low recurrence rates and morbidity. Given this success, quality of life and the avoidance of chronic pain have become the most important considerations in hernia repair.

Approximately 75% of abdominal wall hernias occur in the groin. The lifetime risk of inguinal hernia is 27% in men and 3% in women.² Of inguinal hernia repairs, 90% are performed in men and 10% in women. The incidence of inguinal hernias in males has a bimodal distribution, with peaks before the first year of age and after age 40. Abramson demonstrated the age dependence of inguinal hernias in 1978. Those age 25 to 34 years had a lifetime prevalence rate of 15%, whereas those age 75 years and over had a rate of 47% (Table 37-1).³ Approximately 70% of femoral hernia repairs are performed in women; however, inguinal hernias are five times more common than femoral hernias. The most common subtype of groin hernia in men and women is the indirect inguinal hernia.⁴

History

Evidence of surgical repair of inguinal hernias can be traced back to ancient civilizations of Egypt and Greece.⁵ Early management of inguinal hernias often involved a conservative approach with operative management reserved only for complications. Surgery often involved routine excision of the testicle, and wounds were closed with cauterization or left to granulate on their own. Considering these procedures were

performed before the advent of the aseptic technique, it is safe to assume that mortality was quite high. For those that survived the operation, recurrence of the hernia was common.

From the late 1700s to the early 1800s, physicians including Hesselbach, Cooper, Camper, Scarpa, Richter, and Gimbernat identified vital components of the inguinal region, and their contributions are reflected in the current nomenclature. Improved understanding of the anatomy and pathophysiology of inguinal hernias, coupled with the development of aseptic technique, led surgeons such as Marcy, Kocher, and Lucas-Championnière to perform sac dissection, high ligation, and closure of the internal ring. Outcomes improved, but recurrence rates remained high with prolonged follow-up.

Based on a comprehensive understanding of inguinal anatomy, Bassini (1844–1924) transformed inguinal hernia repair into a successful venture with minimal morbidity. The success of the Bassini repair over its predecessors ushered in an era of tissue-based repairs. Modifications of the Bassini repair were manifest in the McVay and Shouldice repairs. All three of these techniques, as well as modern variations such as the Desarda operation, are currently practiced.⁶

In the early 1980s, Lichtenstein popularized the tension-free repair, supplanting tissue-based repairs with the widespread acceptance of prosthetic materials for inguinal floor reconstruction. This technique was superior to previous tissue-based repair in that mesh could restore the strength of the transversalis fascia, thereby avoiding tension in the defect closure. Superior results were reproducible regardless of hernia size and type, and they were achievable among expert and nonexpert hernia surgeons alike.⁷

With the advent of minimally invasive surgery, inguinal hernia repair underwent its most recent transformation. Laparoscopic inguinal hernia repair offers an alternative approach, minimizes postoperative pain, and improves recovery.