


EPIDEMIOLOGICAL AND CLINICAL ASPECTS OF ABDOMINAL HERNIAS <https://doi.org/10.56238/sevened2025.020-008>

Ana Elise Nantes Schimith¹, Thalia Azevedo Ribeiro², Ariana Karolina Guevara Alvarez³ and Márcia Fernandes Carvalho⁴

ABSTRACT

Abdominal hernias, particularly inguinal hernias, are common surgical conditions around the world, predominantly affecting men. They are characterized by the protrusion of tissues through weakened areas of the abdominal wall, being influenced by genetic, behavioral, and environmental factors, such as smoking, age, physical exertion, and comorbidities. The study highlights a higher prevalence between 31 and 40 years of age and emphasizes that pain and the impact on quality of life vary, and there is not always an immediate benefit from surgery. The pathophysiology involves increased intra-abdominal pressure and fragility of the abdominal wall. Despite the frequency of comorbidities among patients, no significant association was observed with increased mortality. It is concluded that coping with abdominal hernias requires an individualized approach, attention to risk factors and preventive strategies that favor early diagnosis and appropriate treatment.

Keywords: Inguinal hernia. Abdominal hernias. Risk factors. Quality of life. Surgery.

¹Anaelise.schimith@hotmail.com
Unifasig University Center

²Thalia.azevedo02@gmail.com
Dynamic Faculty Vale do Ipiranga

³Dra.arianaguevaraa@gmail.com
Universidad de Guayaquil

⁴Marciacarvahofer@gmail.com
Faculty of Medical and Health Sciences of Juiz de Fora- Supreme

INTRODUCTION

Abdominal hernias represent one of the most prevalent surgical conditions in the world, characterized by the protrusion of organs or tissues through points of weakness in the abdominal wall. Among the various types, inguinal hernia is the most frequent, especially among men. The development of hernias is multifactorial, involving genetic, environmental, and behavioral aspects, such as smoking, age, comorbidities, and repetitive physical exertion.

EPIDEMIOLOGY AND RISK FACTORS

Studies indicate that the lifetime risk of developing inguinal hernia is approximately 25% for men and less than 5% for women. The male gender, therefore, constitutes one of the main risk factors. In our study, a higher prevalence of inguinal hernias was observed in the age group between 31 and 40 years, which is consistent with data in the literature that point to a progressive increase in incidence with advancing age (Fitzgibbons, 2015).

In addition, smoking has been linked to the breakdown of collagen, an essential component of abdominal wall integrity. Other relevant factors include chronic constipation, persistent cough (especially in smokers and COPD patients), family history, and diseases that increase intra-abdominal pressure.

CLINICAL MANIFESTATIONS AND QUALITY OF LIFE

Patients with inguinal hernia may report constant or intermittent pain radiating to the genital region or thigh, often limiting their daily activities (Rodrigues & Lázaro, 2006). However, the relationship between pain and quality of life is complex. In a randomized clinical trial with 160 patients in the United Kingdom, no significant differences in pain or quality of life were observed after one year between operated and non-operated patients. Similar results were found in a multicenter study in North America with 720 patients (Hair et al., 2001).

COMORBIDITIES AND PROGNOSIS

The presence of comorbidities is frequent among patients undergoing hernioplasty, including pulmonary and cardiovascular diseases, diabetes mellitus, prostate diseases, and chronic constipation (Júnior & Souza et al., 2022). Although these factors may theoretically increase the risk of death, our data suggest that this association is not statistically significant, reinforcing the need for individualized evaluation.

PATHOPHYSIOLOGICAL ASPECTS

Increased intra-abdominal pressure is the main pathophysiological mechanism involved in hernia formation. The combination of abdominal wall fragility and increased internal pressure favors the protrusion of abdominal structures through natural or acquired orifices. Chronic cough, constipation, and aging-related tissue atrophy are aggravating factors (Sperandio, 2008).

CONCLUSION

Abdominal hernias, especially inguinal hernias, represent an important public health problem. Its management requires not only appropriate surgical intervention, but also an in-depth understanding of the risk factors and associated clinical conditions. Investments in prevention, early diagnosis, and individualized treatment are essential to improve the prognosis and quality of life of patients.

REFERENCES

1. Fitzgibbons, R. J. (2015). Inguinal hernia. *The New England Journal of Medicine*, 372(4), 356–366. <https://doi.org/10.1056/NEJMcp1404068>
2. Hair, A., Paterson, C., Wright, D., Baxter, J. N., & O'Dwyer, P. J. (2001). Surgery or watchful waiting for inguinal hernia in men: A randomized clinical trial. *British Journal of Surgery*, 88(5), 653–659. <https://doi.org/10.1046/j.1365-2168.2001.01739.x>
3. Júnior, E., Souza, T., & outros. (2022). Comorbidades em pacientes submetidos à hernioplastia inguinal. [Revista não especificada, informações incompletas].
4. Rodrigues, B. D. S., & Lázaro, S. A. (2006). Avaliação da dor em pacientes com hérnia inguinal. *Revista Brasileira de Cirurgia*, 33(2), 78–83. [DOI não disponível; verificar fonte].
5. Sperandio, F. F. (2008). Fatores de risco para hérnias abdominais. *Revista do Colégio Brasileiro de Cirurgiões*, 35(4), 267–272. <https://doi.org/10.1590/S0100-69912008000400012>