

# Retrospective Analysis of MIS Versus Open Scrotal Hernioplasty: A Comparative Study

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## INTRODUCTION

- Inguinoscrotal hernias represent a surgical challenge due to its higher morbidity, technical complexity, and risk of complications.
- Recent guidelines from the European Hernia Society (EHS) acknowledge that minimally invasive techniques can be performed safely by experienced surgeons.
- In this context, it is essential to compare both surgical strategies in order to optimize the treatment of this uncommon but clinically significant condition

## AIM

To evaluate and compare clinical outcomes, complication rates, and post-operative recovery profiles between minimally invasive inguinoscrotal hernioplasty and the open technique.

## MATERIAL & METHODS

- Retrospective, multicentric study. including patients with inguinoscrotal hernioplasty between January 2020 and December 2023.
- Were divided into two groups based on the surgical approach: laparoscopic (LA) and open (OA).
- Demographics variables, hernia characteristics, operative time, hospital stay, postoperative complications, and recurrence rates.
- Inclusion criteria were adult males aged >18 years with scrotal hernias classified as H3-4 according to the Kingsnorth classification. Emergency surgeries were excluded.

## RESULTS

- 244 patients were included, 24 undergoing laparoscopic hernioplasty and 220 undergoing open surgery.
- The laparoscopic group (LA) had more comorbidities (95,8 vs 69.5% ;p=0.03) a longer mean operative time (76 vs. 145 minutes) and similar hospital stays (1.5 vs. 1.6 days).
- LA group associated higher ventral hernia repair (33.3 vs 6.4%, p=0.001).
- Complication rates were similar with higher Clavien dindo score in OA group.
- At a 12- month follow-up, LA had only 1 (4.2%) hernia recurrence while 14 (6,4%) in OA group.

## CONCLUSIONS

- Laparoscopic inguinoscrotal hernioplasty offer significant advantages over the Open approach. It is associated with shorter recovery times, comparable recurrence rates, and similar hospital stays.
- Laparoscopic techniques show particular benefits in the management of inguinoscrotal hernias in more complex patients.
- Also facilitates the performance of additional procedures optimizing surgical treatment and reducing the need for a second approach or intervention
- These findings support the use of laparoscopy in inguinoscrotal hernia repair, especially in centers with expertise in abdominal wall surgery.