

## Retrospective analysis of transabdominal preperitoneal hernia repair in emergency cases: a cohort study

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### Introduction

Laparoscopic techniques such as TAPP (Transabdominal Preperitoneal repair) are well established in elective settings, while their application in emergencies is debated due to limited supporting literature. This study aims to assess the safety, feasibility, and efficacy of the TAPP approach in emergency cases involving incarcerated or strangulated inguinal hernias.

### Materials and Methods

Retrospective analysis conducted on 54 patients treated with emergency TAPP repair for incarcerated or strangulated groin hernias between January 2005 and December 2023 at ASST Nord Milano. Surgeries followed a standardized laparoscopic technique, with mesh implantation and selective organ resection when necessary. Follow-up performed through clinical visits and telephone interviews.

### Results

Out of 177 emergency hernia cases, 54 patients underwent laparoscopic TAPP. The median age was 72 years; 61.2% were female. Femoral hernias were the most common (48%). Median operative time was 100 minutes. Conversion to open surgery occurred in 11.1% of cases. Organ resections included omentum (22.2%), appendix (5.55%), and bowel (1.85%). Postoperative complications occurred in 5.55% of cases, and one recurrence (1.85%) was recorded during a median follow-up of 38 months. Chronic pain was minimal, affecting one patient (VAS 3).

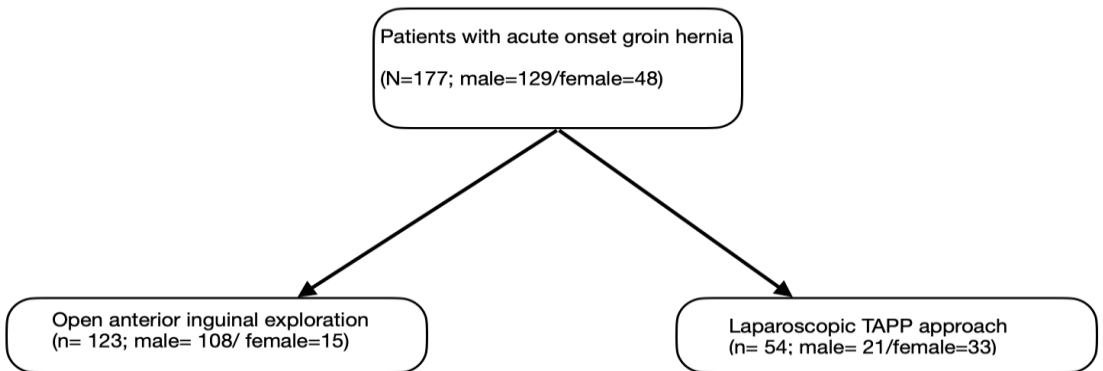


Figure 1: Surgical approach chosen for patients presenting to the emergency department with incarcerated inguinal hernia

### Conclusion

TAPP hernia repair is a viable option in emergency settings when performed by experienced surgeons. It demonstrates low complication and recurrence rates in the long term and may offer specific advantages such as better anatomical visualization and mesh placement, particularly in complex hernia cases.

### References

1. Deeba et al. JSLS. 2009.
2. Sbacco et al. Langenbeck's Arch Surg. 2024.
3. Egawa et al. Ann Gastroenterol Surg. 2019.