

Comparative Evaluation of TAPP, TEP and eTEP techniques for Inguinal Hernia Repair: A focus on Surgical outcomes

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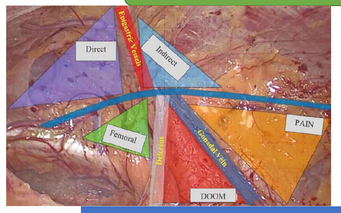
Introduction

- Inguinal hernia is one of the most prevalent surgical conditions globally, with minimally invasive techniques revolutionizing its treatment.
- Transabdominal Preperitoneal (TAPP), Extended Totally Extraperitoneal (ETEP), and Totally Extraperitoneal (TEP) repairs—each offer unique advantages.
- These techniques differ in anatomical access, risk profiles, and technical demands, influencing both short- and long-term surgical outcomes.
- This presentation provides a comparative analysis of these procedures, highlighting their efficacy, safety, and clinical impact.

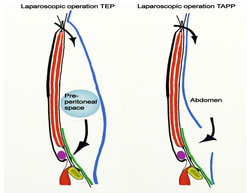
Methods

- Since January 2023, retrospective data has been meticulously gathered from a prospectively maintained electronic database, ensuring comprehensive patient tracking.
- Detailed patient profiles, including demographics, clinical findings, hernia classification, and laterality, were documented, with all cases undergoing TAPP, ETEP, or TEP repair.
- A thorough analysis of postoperative data was conducted to evaluate early outcomes, offering valuable insights into the efficacy and safety of each surgical approach.

Technique

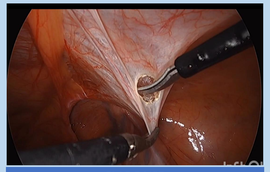


FIVE TRIANGLES

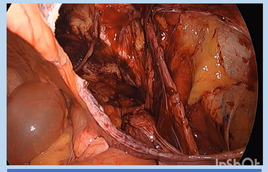


Steps Of Surgery

TAPP



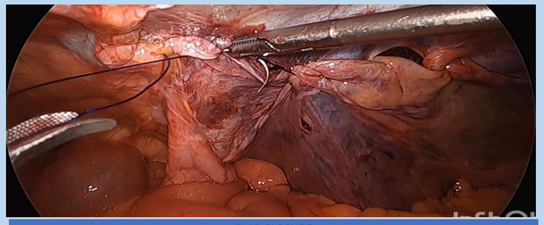
FLAP RAISE



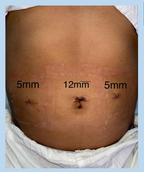
ANATOMICAL LANDMARK



MESH PLACEMENT

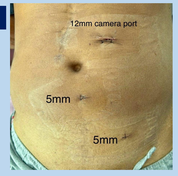


FLAP CLOSURE



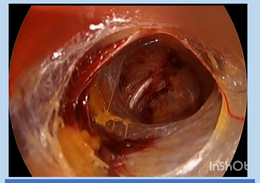
TAPP

Port Position



eTEP

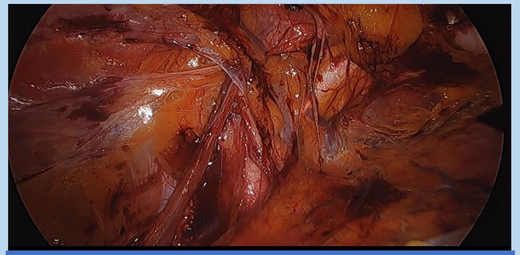
eTEP/TEP



RETROMUSCULAR PLANE



INDIRECT HERNIA AND CONTENTS REDUCED



ANATOMICAL DELINEATION



MESH PLACEMENT

References

1. Jenkins, J. T., & O'Dwyer, P. J. (2008). *Inguinal hernias*. BMJ, 336(7638), 269-272. DOI:10.1136/bmj.39450.428275.AD

2. Köckerling, F. (2019). *The development of laparoscopic inguinal hernia repair: TAPP and TEP techniques*. Frontiers in Surgery, 6, 12. DOI:10.3389/fsurg.2019.00012

Results

Patient Demographics

Total Patients	Male	Female	Mean Age (Years)
172	168	8	55

Inguinal Hernia Distribution & Surgical Approach

Hernia Type	Total Cases (n)	TAPP (n)	ETEP (n)	TEP (n)
Right Inguinal Hernia	72	42	18	12
Left Inguinal Hernia	54	28	14	12
Bilateral Hernia	46	20	10	16
Total Cases	**172**	**90**	**42**	**40**

Operative Time & Conversion Rates

Procedure	Mean Duration (Minutes)	Conversion to TAPP (n)
TAPP	40 ± 10	-
ETEP	55 ± 14	3
TEP	35 ± 5	-

Postoperative Outcomes

Procedure	Seroma Rate (%)	Recurrence Rate (%)
TAPP	7.78%	4.4%
ETEP	12%	4.7%
TEP	5%	5%

Conclusion

- TEP stands out for speed and safety**, delivering the shortest operative time and the lowest seroma rates.
- ETEP excels in precision and control**, offering superior anatomical visualization, making it the go-to choice for complex cases.
- With similar recurrence rates across all techniques**, the ideal approach depends on surgeon expertise and patient-specific needs, reinforcing the need for tailored surgical decisions.