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INGUINAL HERNIA

A COMPARATIVE STUDY ON OPTICAL TROCAR ENTRY VS BALLOON TROCAR ENTRY IN LAPAROSCOPIC eTEP INGUINAL HERNIA REPAIR - A RANDOMISED CONTROL TRIAL

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INTRODUCTION

- The enhanced Totally Extra-Peritoneal (eTEP) technique is a novel minimally invasive approach to inguinal hernia repair that involves entry into the retro-rectus space and dissection of preperitoneal spaces.
- Two common access techniques include: Optical trocar dissection (OT) and Balloon trocar dissection (BT).

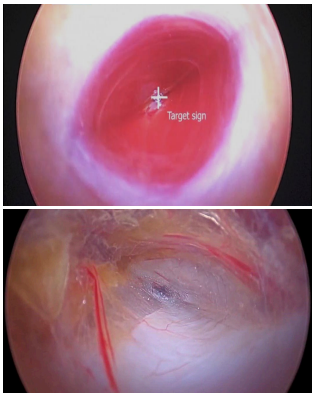
STUDY DETAILS

- **Aim**: To compare OT vs BT in space creation, complications, pain, and operative efficiency.
- **Design**: Prospective, randomized, single-blinded trial
- **Sample**: 116 patients, 58 per group
- **Location**: SRM Medical College Hospital, India
- **Duration**: Jan 2022 – June 2024
- **Inclusion**: Adults >18 yrs, uncomplicated inguinal hernias, fit for GA
- **Exclusion**: Prior hernia surgery, anticoagulation, uncontrolled diabetes, etc.
- **Parameters Assessed**: Surgery duration, Time for space creation, Intra/post-op occurrences, Pain scores

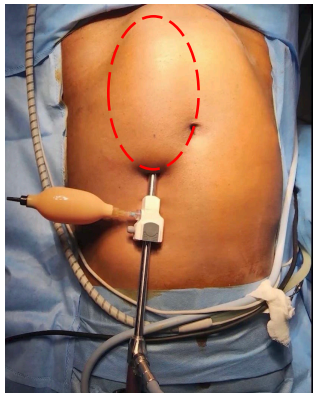
CONCLUSION

- Balloon trocar entry is safer, faster, and associated with lower post-op pain and fewer complications than optical trocar entry in eTEP hernia repair.
- Recommended especially for surgeons in early training stages.

Optical trocar dissection



Balloon trocar dissection



Parameter	Optical Trocar (OT)	Balloon Trocar (BT)	P-Value
Space Creation Time (min)	19 ± 3.5	13 ± 2.9	< 0.0001
Surgery Time (min)	75 ± 6.3	62 ± 7.4	< 0.001
Peritoneal Breach	6 (10.34%)	0	< 0.002
Wrong Plane Entry	9 (15.5%)	2 (3.45%)	0.013
Seroma	5 (8.62%)	1 (1.72%)	< 0.00001
Hematoma	10 (17.24%)	1 (1.72%)	< 0.004
Pain (VAS Day 0)	9	7	0.02
Mean Pain Score (VAS)	6.75 ± 2.19	4.75 ± 2.19	—

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