SINGLE SURGEON EXPERIENCE WITH EXTENDED TOTALLY EXTRAPERITONEAL (eTEP) TECHNIQUE FOR ROBOTIC HERNIA REPAIR

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INTRODUCTION

The surgical management of abdominal wall hernias continue to involve, with increasing use of the robotic platform. The objective of this study is to report outcomes associated with a case series of robotic abdominal wall hernia repair with the extended totally extraperitoneal (R-eTEP) technique.

METHODS

Consecutive R-eTEP hernia cases were captured in a prospective database between 2020 and 2023 and analyzed retrospectively. Patient demographics, pre-operative comorbidities, hernia history, operative information, and 30-day outcomes were captured. Continuous variables are compared using Kruskal Wallis tests, while categorical variables are compared using chi-squared or Fisher exact tests.

RESULTS

- Fifty-four R-eTEP cases were analyzed, with a mean age and BMI of 62-years and 29.7kg/m2. 74% were male.
- 18% had a prior incisional hernia repair, and 31% required concomitant enterolysis.
- Paravertebral block was utilized in 98%.
- Incisional hernia distribution included 33% epigastric, 48% umbilical and 20% infraumbilical. Hernia diameter distribution included 13% less than 4cm, 61% 4-10cm, and 2% greater than 10cm.
- 91% had bilateral rectus myofascial release, while 3% and 6% required a unilateral or bilateral transversus abdominus release, respectively.
- Mean procedure time was 3.3-hours (SD 0.89 hour), including a mean enterolysis time of 66.7min (SD 32.2 mins). Conversion was 1.9%. Mean length of stay was 0.73-day (SD 0.81day). Mean discharge and interval follow-up pain scores was 2.57 (SD 2.02) and 0.72 (SD 1.19), respectively. There were no reoperation or early recurrence. Complications included one hematoma (1.9%) and one skin complication (1.9%).

Table 1. eTEP outcomes

	Mean	Standard Deviation
Pain at Discharge	2.57	2.02
Pain at Interval Follow-up	0.72	1.19
Hospital LOS in Hours	17.52	19.34
Hospital LOS in Days	0.73	0.81
Follow-up Duration	19.15	74.72
	N	Percent
Any Complication	6	13%
Conversion	1	2%
Unrestricted Activity Level	44	94%
Hematoma	1	2%
Seroma	5	11%
Skin necrosis, other skin complication	1	2%
ED Admission	1	2%

CONCLUSIONS

- Robotic eTEP herniorrhaphy is a safe and effective technique for managing ventral abdominal hernias
- Most can be done as outpatient procedures.
- Associated with excellent patient reported outcomes.

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