Robotic repair of large inguinoscrotal hernias: a single institution experience

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INTRODUCTION

- A scrotal component to an inguinal hernia makes a minimally invasive hernia repair substantially more difficult due to:
  - greater complexity of dissection
  - difficulty of reducing hernia contents
  - large size of the abdominal wall defect
- Many surgeons will only offer open repairs for these complex hernias

OBJECTIVE

- To present our single institution experience with robotic-assisted repair of large inguinoscrotal hernias

METHODS

- A retrospective chart review was completed for all male patients who underwent elective robotic-assisted inguinoscrotal hernia repair at our quaternary academic center from July 2018 through July 2021
- Inguinoscrotal was defined as the presence of hernia contents within the scrotum as documented in the surgeon's physical exam or operative report



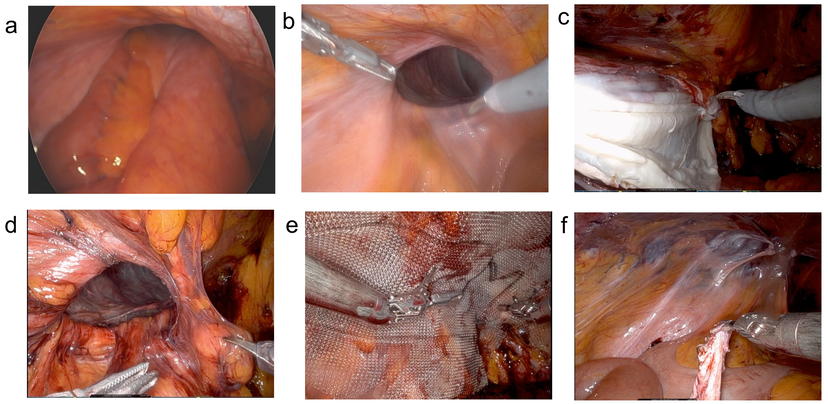


RESULTS

- 36 patients underwent robotic repair of their inguinoscrotal hernia
  - 35/36 (97.2%) robotic-assisted transabdominal approach
  - 1/36 (2.8%) robotic extended totally extraperitoneal (eTEP) approach

Patient Factor	Outcome
Age (years), mean (range)	62 (25-85)
BMI (kg/m^2), mean (range)	29.3 (18.5-51.2)
Smoking status, n (%)	
Never	19 (52.8%)
Former	12 (33.3%)
Current	5 (13.9%)
Recurrent hernia, n (%)	10 (27.8%)
First recurrence	7/10 (70%)
Second recurrence	3/10 (30%)
Prior mesh	9/10 (90%)

Perioperative Details



Intraoperative images. a. Herniated bowel through defect. b. View of large defect following reduction of hernia contents. c. Dissection of large hernia sac. d. Defect following complete dissection and excision of hernia sac. e. Mesh positioning prior to peritoneal flap closure. f. Completed robotic inguinoscrotal hernia repair.

Perioperative Factor	Outcome
Multiple hernias repaired, n (%)	
Bilateral inguinal hernias	12 (33.3%)
Ventral hernia	4 (11.1%)
Hernia contents, n (%)	
Preperitoneal fat	27 (75%)
Small bowel	14 (38.9%)
Large bowel	14 (38.9%)
Omentum	5 (13.9%)
Bladder	4 (11.1%)
Operating time (minutes), mean (range)	182 (91-395)
Day of discharge, n (%)	
Day of surgery	13 (36.1%)
Postoperative day 1	21 (58.3%)
Postoperative day 2-4	2 (5.6%)
Follow up time (months), mean (range)	1 (0.5-12)
Recurrence, n (%)	2 (5.6%)

- Surgical site occurrences were common
  - Seroma: 17 (47.2%)
    - Procedural intervention: 1 seroma (5.9%) → bedside needle aspiration
  - Hematoma: 2 (5.6%)
    - Procedural intervention: 2 hematomas (100%) → evacuation in OR
      - both patients on therapeutic anticoagulation
      - both patients had postoperative JP drains that were monitored prior to resumption of anticoagulation
- JP drains placed in 7 patients (19.4%)
  - JP drains were not associated with seroma formation (p = 0.56)
- There were no surgical site infections

CONCLUSIONS

- From our experience, using the surgical robot is a feasible approach to repairing large inguinoscrotal hernias.
- There were no surgical site infections in our cohort, and majority of surgical site occurrences were seromas that resolved spontaneously.
- Further study on perioperative management of therapeutic anticoagulation in this population is needed.

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