Laparoscopic Intestinal Ostomy Reversal: Efficacy and Postoperative Outcomes

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Introduction

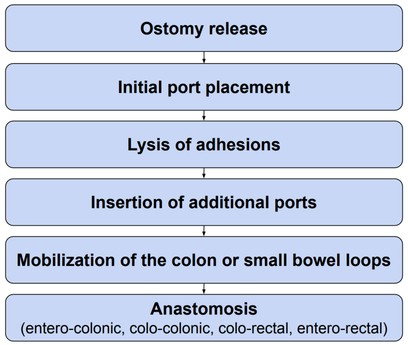
- Temporary intestinal ostomies are commonly performed to allow gastrointestinal healing, mostly in emergencies like complicated diverticulitis and bowel obstruction
- Both open and laparoscopic approaches exist for ostomy creation, however, they often cause peritoneal adhesions, making ostomy reversal more challenging
- Ostomy reversal is a procedure aimed at restoring normal bowel continuity, traditionally performed via open surgery
- In selected cases, laparoscopic reversal is a viable alternative, offering benefits such as reduced pain, faster recovery, and shorter hospital stays

Objective

- To evaluate our experience, outcomes, and efficacy of laparoscopic intestinal ostomy reversal in a Latin American setting, specifically in three academic and non-academic institutions

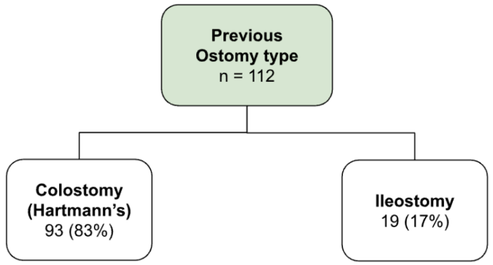
Methods

- Timeframe: January 2015 to July 2023
- N = 112 patients who underwent laparoscopic intestinal ostomy reversal
- Patient demographics, preoperative characteristics, intraoperative details, and postoperative outcomes were retrospectively collected
- All procedures were perfomed by the same surgical teams in three different academic and non-academic private institutions, ensuring uniformity across cases



Results

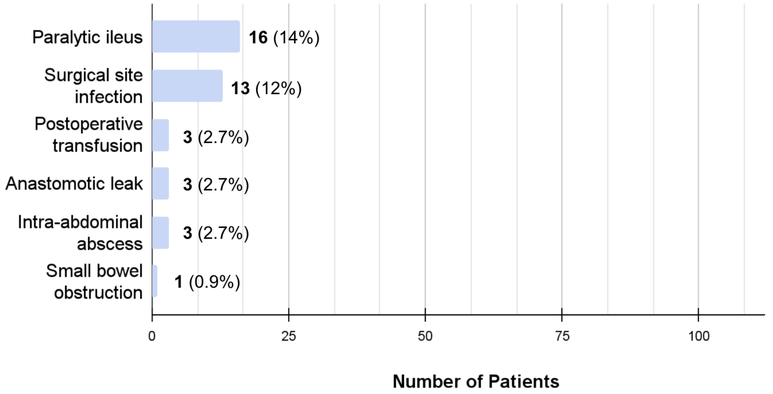
Preoperative Characteristics	*n (%), mean (SD)*
Age (years)	55 ± 19
Female	56 (50)
BMI 25 - 30	58 (52)
ASA II	74 (66)
Temporary ostomy approach	
Open	94 (84)
Laparoscopic	18 (16)



Intraoperative Details	*n (%), median (IQR)*
Conversion to open surgery	7 (6)
Severe adhesions	7 (6)
Estimated blood loss < 100 mL	88 (79)
Operative time (min)	150 (110 - 200)
Intracorporeal anastomosis	17 (15)

Postoperative Recovery	*n (%), median (IQR)*
Initiation of oral diet (days)	1 (1 - 2)
Transition to oral analgesia (days)	3 (3 - 4)
Requirement of Surgical ICU	9 (8.0)
Length of hospital stay (days)	3 (2 - 6)

Postoperative Complications



Postoperative Outcomes	*n (%), median (IQR)*
Reoperation	8 (7.1)
Anastomotic leak	3 (2.6)
30-day readmission	10 (8.9)
30-day or in-hospital operative mortality	1 (0.8)
Mesenteric ischemia	1 (0.8)

Conclusion

- Laparoscopic intestinal ostomy reversal is a safe and feasible option for appropriately selected patients, including complex cases
- The procedure is associated with low conversion rates and minimal complications when performed by an experienced surgical team
- Strict prehabilitation protocols play a key role in optimizing outcomes and minimizing surgical risks
- These findings support the broader adoption of laparoscopic ostomy reversal in appropriate clinical settings