

# THE INCIDENCE OF BOWEL OBSTRUCTION AFTER ILEAL POUCH ANAL ANASTOMOSIS: DOES THE ACCESS METHOD MATTER?

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## Background

- Small bowel obstruction (SBO) is one of the most common complications after total proctocolectomy with ileal pouch-anal anastomosis (IPAA).
- Aim:** compare the incidence of SBO among open, hand-assisted, and laparoscopic IPAA and identify pertinent risk factors associated with the different approaches

## Methods

- Retrospective cohort
- Inclusion criteria:** patients who underwent laparoscopic, hand-assisted, or open IPAA at our institution between 2010 and 2018
- SBO:** confirmed by clinical symptoms and imaging
- Comparison between IPAA approaches:** Laparoscopic vs. hand-assisted/open
- Univariate and multivariate analyses:** Evaluate potential risk factors for SBO

Table 1.1 Univariate analysis for small bowel obstruction:

| Variable<br><i>n(%) or median (range)</i> | Without SBO<br>(n=197) | With SBO<br>(n=37) | <i>p</i> value |
|-------------------------------------------|------------------------|--------------------|----------------|
| Median age (range)                        | 44.0 (18.0-78.0)       | 40.0(19.0-67.0)    | 0.31           |
| Female gender, n (%)                      | 78 (39.6)              | 15 (40.5)          | 0.91           |
| ASA, n (%)                                |                        |                    | 0.67           |
| 1                                         | 9 (4.6)                | 2 (5.4)            |                |
| 2                                         | 158 (80.6)             | 28 (75.7)          |                |
| 3                                         | 29 (14.8)              | 7 (18.9)           |                |
| Hypertension, n (%)                       | 24 (12.2)              | 5 (13.5)           | 0.82           |
| Diabetes mellitus, n (%)                  | 4 (2.0)                | 1 (2.7)            | 0.58           |
| Coronary disease, n (%)                   | 8 (4.1)                | 0 (0.0)            | 0.36           |
| Renal disease, n (%)                      | 1 (0.5)                | 0 (0.0)            | 1.00           |
| Past Surgical history, n (%)              | 117 (59.4)             | 23 (62.2)          | 0.75           |
| IPAA Stage, n (%)                         |                        |                    | 0.07           |
| 1 or 2                                    | 126 (64.0)             | 18 (48.6)          |                |
| 3                                         | 71 (36.0)              | 19 (51.4)          |                |
| Adhesion barrier, n (%)                   | 26 (13.2)              | 6 (16.2)           | 0.62           |
| No Ileostomy closure                      | 18 (9.1)               | 2 (5.4)            | 0.74           |
| Approach type, n (%)                      |                        |                    | 0.12           |
| Open                                      | 47 (19.8)              | 14 (37.8)          |                |
| Laparoscopic                              | 110 (55.8)             | 14 (37.8)          |                |
| Hand assisted                             | 40 (20.3)              | 9 (24.3)           |                |
| <b>Approach type, n (%)</b>               |                        |                    | <b>0.04</b>    |
| <b>Laparoscopic</b>                       | <b>110 (55.8)</b>      | <b>14 (37.8)</b>   |                |
| <b>Open + hand-assisted</b>               | <b>87 (44.2)</b>       | <b>23 (62.2)</b>   |                |

Note: SBO, small bowel obstruction; ASA, American Society of Anesthesiologists; IPAA, ileal pouch-anal anastomosis.

## Results

- Study population: 234 patients
- Incidence of SBO: 15.8% (n=37)  
Surgical management: 40.5% (n=15)  
Conservative management: 59.5% (n=22)
- Median follow-up: 53 months
- Multivariate analysis: development of SBO  
Open or hand-assisted:  
OR=2.31, 95%CI 1.11-4.83 (**p=0.025**)

## Conclusion

- Laparoscopic IPAA is associated with significantly less SBO compared to open and hand-assisted access.