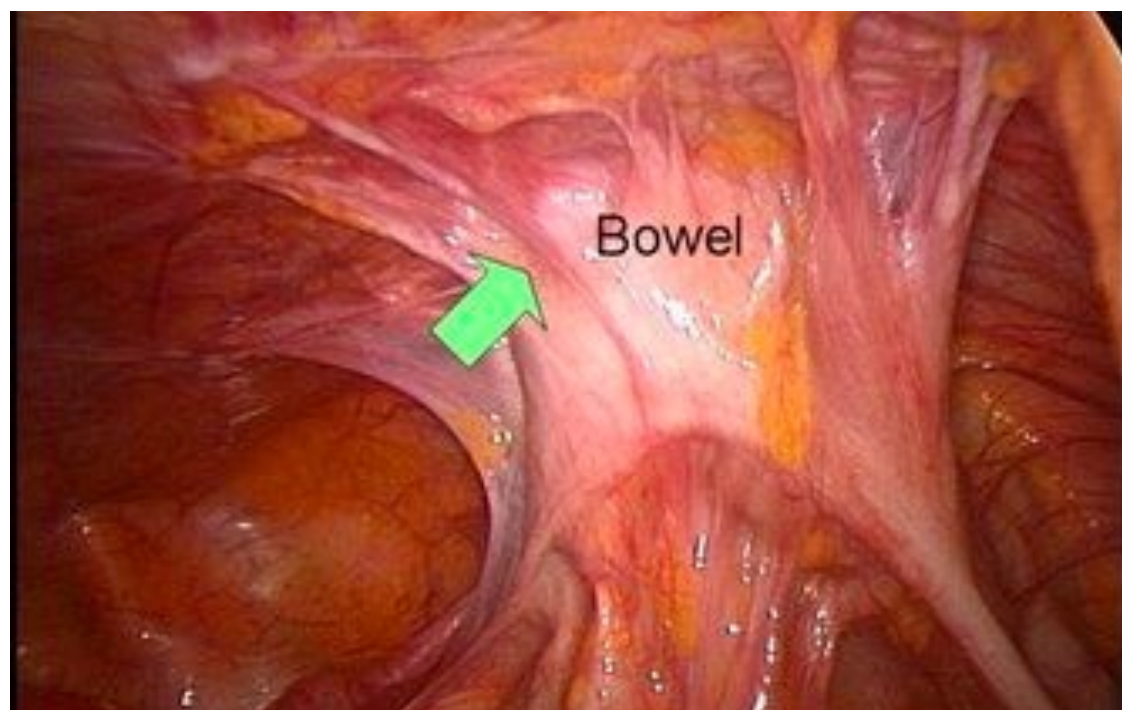


Introduction

- **Small bowel obstruction:** blockage in small intestine
- **Adhesions** are the most common cause



- Accounts for 300,000 hospitalizations in the US annually, and 20% of emergency surgical procedures in patients with abdominal pain^{1,2}
- **High morbidity and mortality**
 - Average hospital stay of 8 days
 - 30-day readmission rate of 16%
 - In-hospital mortality rate of 3%^{3,4}
- **Costly** diagnosis: more than \$2 billion spent on admissions for adhesion-related disease in the United States³
- **Clinical presentation:** variable, includes abdominal pain, vomiting, constipation, nausea, and abdominal distention⁵
- Management
 - **Operative:** important if signs of ischemia, peritonitis, or strangulation³
 - **Conservative:** includes bowel rest, nasogastric decompression, serial examinations, and a water-soluble contrast challenge.
 - Majority of patients (65-80%) with SBO due to adhesions can be successfully managed with non-operative treatment³
- Wide institutional variation exists with respect to the decision on admitting service

Aim and Objective

To understand the differences in admitting service (medicine or surgery) in patients with SBO on morbidity and length of stay in a large academic hospital vs a community hospital.

Methods

Study Design

- Retrospective chart review
- Convenience sample of 200 consecutive patients with confirmed SBO
 - 100 admitted at Beaumont Royal Oak
 - 100 admitted at Beaumont Troy
- A prospective study design was not feasible given the limited number of SBO patients treated by Beaumont each year and the time constraints of this project.

Inclusion Criteria

Adult patients (>18 years of age on the date of service) at Beaumont Royal Oak or Beaumont Troy with an admission adhesions (International Classification of diagnosis of SBO with 3 Diseases [ICD] 10, code K56.609).

Exclusion criteria:

- Patients <18 years old
- Concurrent intraabdominal malignancy
- Non-adhesion related obstruction
 - Appendicitis
 - Hernia
 - Crohn's disease
 - Ulcerative colitis
 - Intussusception
 - Paralytic ileus
 - Volvulus
 - Impaction of intestine
 - Diverticulitis
 - Fistula of intestine
 - Meckel's Diverticulum
- Elective operations

Results

Admitting Service	Troy	Royal Oak
Surgery	19	99
Medicine	81	1

- Only one patient from Beaumont Royal Oak was admitted to the Medicine service.
- The aims of the study were adjusted to compare outcomes of surgical service admissions between the Troy and Royal Oak campuses.

Admission to the Department of Surgery

Surgical Management

- 30 day readmission rate: higher readmission rate at Royal Oak (11.1%) compared to Troy (5.3%)
 - Mean days until readmission: Troy 1, Royal Oak 1.8
- Post-op complications including infection and hemorrhage not statistically significant between the sites
- Mortalities: 0 at Troy, 1 at Royal Oak
- Difference in length of stay was not statistically significant

Medical Management

- 30 day readmission rate: higher readmission rate at Troy (21%) compared to Royal Oak (2%)
 - Mean days until readmission: Troy 3.7, Royal Oak 2.5
- Mortalities: none from either hospital
- Difference in length of stay was not statistically significant

Demographics	Troy	Royal Oak
Gender		
Male, n (%)	5 (26.3%)	45 (45.4%)
Female, n (%)	14 (73.7%)	54 (54.5%)
Age, mean	62.3	66.2
Race		
White, n (%)	19 (100%)	78 (78.8%)
Black, n (%)	0 (0%)	18 (18.2%)
Asian, n (%)	0 (0%)	3 (3%)
Length of Stay, mean	5.8	6.0

Conclusions

- Post-op complications were similar between sites.
- Readmission rates for patients managed surgically were higher at Royal Oak while patients managed medically were higher at Troy.
- Potential impact of greater resident involvement in care at Royal Oak.
- Future analysis comparing outcomes of patient's managed by the surgical service vs the medical service should be completed.
- Further research is needed to help guide Emergency Department practice patterns.

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