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Risk Factors for Bowel Obstruction in Patients with Ulcerative Colitis

Introduction

- Bowel obstruction is a relatively common complication of inflammatory bowel disease (IBD), especially in patients who have undergone previous surgery.¹
- Although bowel obstructions have been well studied in Crohn's disease (CD), they are far less understood in patients with ulcerative colitis (UC).²
- Current literature demonstrates that risk of bowel obstructions was largely affected by the type of prior procedures.³
- The objective of this study is to identify risk factors for developing bowel obstruction in patients with UC.

Methods

- The 2017 National Inpatient Sample (NIS) was queried for adult patients with a primary diagnosis of UC. Patients with concomitant CD were excluded.
- Univariate logistic regression was used to identify associations between demographics and obstruction.
- Multivariable logistic regression controlling for demographic factors was used to identify associations between comorbidities and obstruction.

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Figure 1: Forest plot of the odds ratios for demographic demographic structures for the structure of the odds ratios for demographic structures for the structure of the odds ratio structure of the o bowel obstruction in patients with ulcerative colitis



References:

Results

aphics and comorbidities associated with	• A to
OR (95% CI); p-value	obs
Reference	e Uni
1.13 (1.02, 1.25); p=0.025	
Reference	odd
1.21 (1.10, 1.35); p<0.001	p <c< td=""></c<>
	dev
	• Mul
Reference	ass
0.86 (0.72, 1.04); p=0.120	pulr
0.65 (0.52, 0.81); p<0.001	me
0.92 (0.72, 1.18); p=0.499	with
Reference	1033
0.73 (0.61, 0.87); p<0.001	
1.05 (0.94, 1.18); p=0.385	
0.53 (0.36, 0.77); p<0.001	
1.15 (0.86, 1.55); p=0.348	
	DOV
	grea
→ 2.01 (1.34, 3.02); p<0.001	with
- 1.67 (1.23, 2.27); p<0.001	pati
1.84 (1.61, 2.11); p<0.001	• In a
1.45 (1.30, 1.61); p<0.001	me
1.30 (1.01, 1.79); p=0.048	disc
3	wer

1. Rami Reddy, Srinivas R, and Mitchell S Cappell. "A Systematic Review of the Clinical Presentation, Diagnosis, and Treatment of Small Bowel Obstruction." Current gastroenterology reports vol. 19,6 (2017): 28. doi:10.1007/s11894-017-0566-9 2. Bettenworth, Dominik et al. "Assessment of Crohn's disease-associated small bowel strictures and fibrosis on cross-sectional imaging: a systematic review." Gut vol. 68,6 (2019): 1115-1126. doi:10.1136/gutjnl-2018-318081 3. Barmparas, Galinos et al. "The incidence and risk factors of post-laparotomy adhesive small bowel obstruction." Journal of the Society for Surgery of the Alimentary Tract vol. 14,10 (2010): 1619-28. doi:10.1007/s11605-010-1189-8

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otal of 25,150 adults hospitalized for UC were ntified and further stratified by incidence of struction (n=1547, 6.1%).

ivariate analysis showed that male patients (OR) 1, p<0.001) and those above 60 years (OR 3, p=0.025) were associated with increased ds for obstruction. Hispanic patients (OR 0.65, 0.001) were associated with decreased odds for veloping an obstruction.

Itivariable analysis showed that the following are sociated with developing an obstruction: monary hypertension (OR 2.01, p<0.001), tastatic cancer (OR 1.67, p<0.001), solid tumor hout metastasis (OR 1.30, p=0.048), fluid & ctrolyte disorders (OR 1.45, p<0.001), weight s (OR 1.84, p<0.001).

Conclusions

a cohort of inpatients with UC, 6.1% experienced wel obstructions. In patients with UC, age eater than 60 years and men were associated h increased odds for obstruction. Hispanic ients were associated with decreased odds.

addition, patients with pulmonary hypertension, tastatic cancer, weight loss, fluid & electrolyte orders, and solid tumors without metastasis re associated with increased rate of obstruction.