

Malnutrition predicts morbidity and mortality following colectomy for inflammatory bowel disease: a retrospective cohort analysis

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INTRODUCTION

Inflammatory bowel disease (IBD)—including Crohn’s disease and Ulcerative colitis—is a chronic gut inflammation caused by immune intolerance in genetically prone individuals. **25–30%** of patients eventually **need colectomy** due to complications or poor control.

Malnutrition, with a prevalence of 20-85% in IBD patients, is believed to **modify the gut microbiome and trigger inflammatory responses**.

Despite this association, the impact of malnutrition on colectomy outcomes in IBD patients remains unassessed.

AIM

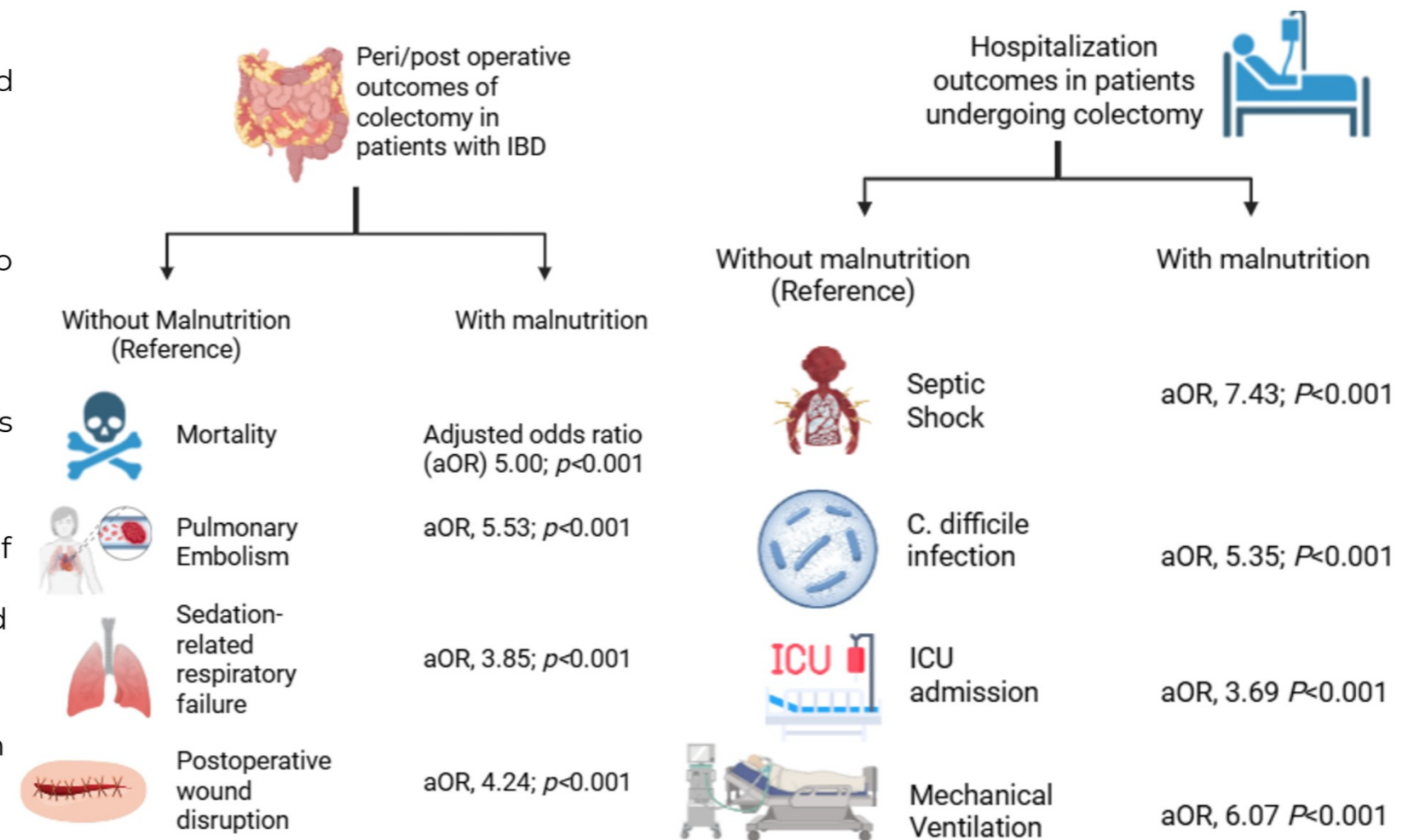
This study aims to determine if preoperative nutritional status affects outcomes in IBD patients undergoing colectomy.

METHODS

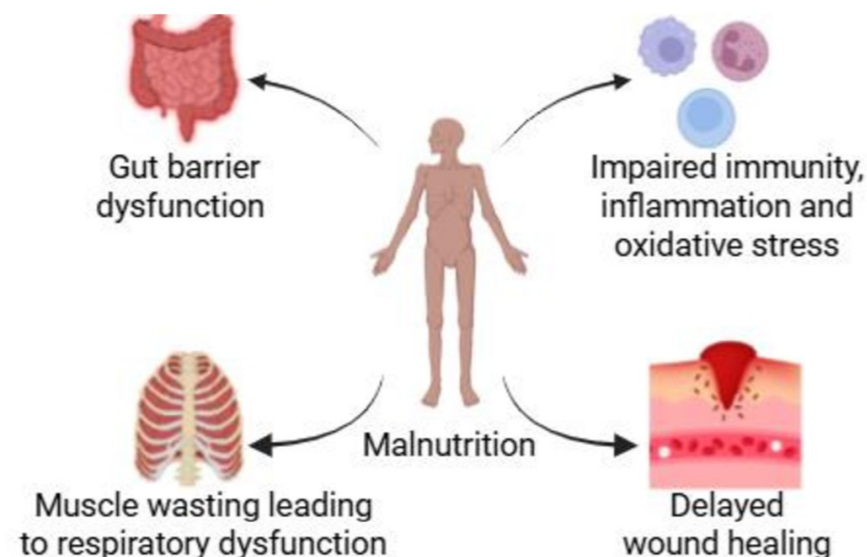
Using the **Nationwide Readmission Database (NRD) 2019**, we identified adult IBD patients who underwent colectomy during hospitalization. We further classified the patients based on the presence of malnutrition. Outcomes between the groups were compared using a multivariate regression model. STATA 14.2 was utilized for statistical analysis.

RESULTS

- We analyzed **68,142 IBD patients** hospitalized for flare-ups who underwent colectomy during the same admission.
- 21.9% (n = 14,956) had malnutrition.
- Patients with malnutrition were more likely to be elder males with a higher Charlson Comorbidity Index.
- After adjustment for confounding variables, our analysis revealed significantly higher odds of mortality among patients with malnutrition.
- Patients with malnutrition had higher odds of perioperative complications and poor hospitalization-related outcomes, as depicted in the figure.
- Finally, resource utilization, as estimated by the mean length of stay (LOS), hospitalization charges, and 90-day readmission rate, was significantly greater in patients with malnutrition compared to those with adequate nutrition



PATHOPHYSIOLOGICAL CORRELATION



CONCLUSIONS

In summary, our findings underscore the clinical implications of malnutrition in IBD patients undergoing colectomy, highlighting the need for addressing malnutrition in IBD patients prior to surgical interventions. Implementing comprehensive nutritional assessment and support strategies could potentially improve postoperative outcomes and reduce healthcare resource utilization.

REFERENCE

Rocha R, de J Santos G, Santana G. Influence of nutritional status in the postoperative period of patients with inflammatory bowel disease. World J Gastrointest Pharmacol Ther. 2021 Sep 5;12(5):90-99. doi: 10.4292/wjgpt.v12.i5.90.

