RURAL VERSUS URBAN DIFFERENCES IN INFLAMMATORY BOWEL DISEASE (IBD) HOSPITALIZATIONS – AN ANALYSIS OF THE NATIONAL INPATIENT SAMPLE (NIS)

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Introduction

Inflammatory bowel disease (IBD) is a significant cause of adult hospitalizations in the United States. There are fundamental differences in demographic distribution, socioeconomic status, access to care, and healthcare infrastructure between rural and urban areas in the US. However, very limited data evaluating these differences is available. The study aims to compare outcomes of IBD patients in these two different settings and explore the causes for any observed differences.

Methods

Data obtained from the national inpatient sample (NIS) 2016–2019 database was evaluated for IBD admissions in rural and urban hospitals of the US. The primary outcome assessed was inpatient mortality, while secondary outcomes included odds of developing bowel perforation, septic shock, perianal disease, need for RBC transfusion, total hospital charges (THC), and length of stay (LOS).

Results

A total of 348,469 adult IBD hospitalizations occurred during the study period. Out of this number, 24,044 patients were managed in rural settings, while 324,425 patients were managed in urban settings. The mean age of rural IBD patients was 48 years old while it was 44 years old in urban areas. Rural IBD patients had shorter inpatient LOS (3.94 days vs 5.03 days, $p< 0.001$) and THC ($24,515 vs $48,754, $p< 0.001$) than urban IBD patients. There was no difference between patient groups regarding inpatient mortality, developing septic shock, bowel perforation, need for RBC transfusion, and odds of developing perianal disease.

Discussion/ Conclusion

- The current study indicates most IBD care variables assessed between rural/urban settings were not statistically different.
- LOS and THC were higher in urban settings compared to rural possibly secondary to higher cost of healthcare and availability of more advanced procedures in the urban setting.
- Increased access to subspecialist practices more comfortable with IBD patient care in urban areas also may contribute to a prolonged LOS.
- Improved understanding of rural/urban IBD patient severity variations and care access/availability are needed to accurately ascertain the reason behind these differences.

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