



Comparative Trends in Admissions and Mortality in Inflammatory Bowel Disease Patients With Alcohol and Substance Abuse: A 10-Year Retrospective National Cohort Study



Karina Fatakhova MD¹, Pratik Patel MD¹, Ali Hassam MD², Rahul Pamarthy MD², Ramona Rajapakse MD, FRCP, FACG¹

1. Mather Hospital Northwell Health

2. East Carolina University

INTRODUCTION

Recent data suggests that approximately 32 million Americans use illegal drugs and approximately 15 million Americans meet criteria for alcohol use disorder (AUD). Patients with Inflammatory Bowel Disease (IBD) are more prone to have substance use disorder SUD or AUD and thus present a preventable strain on the healthcare system. Data suggests worse outcomes in IBD patients with AUD/SUD, however, no current studies assess trends in mortality, admission and healthcare costs for IBD patients with AUD/SUD.

METHODS

We conducted a retrospective study using the National Inpatient Sample (NIS) database, to analyze alcohol and substance abuse among the IBD population from Jan 1, 2009, to Dec 31, 2019. Inclusion criteria included IBD patients, 18 years of age or older with a primary diagnosis of alcohol or substance abuse as defined by the International Classification of Diseases (ICD) 9 (before September 2015) and 10 (after October 2015) coding systems.

RESULTS

- A total of 132,894 IBD patients presented with AUD/SUD related hospitalizations for the study period.
- Length of stay (LOS) was higher in IBD patients with AUD/SUD compared to IBD patients without AUD/SUD ($P < 0.001$).
- There was an increasing trend in mean inpatient cost for IBD patients with AUD/SUD from \$48,698.73 \pm 1374 in 2009 to \$62,672 \pm 1528 in 2019 ($P < 0.001$).
- We report a 159.5% increase in hospitalizations of IBD patients with AUD/SUD, with the rate of hospitalizations increasing from 3,492 per 100,000 IBD patients in 2009 to 9,063 per 100,000 in 2019 ($P < 0.001$).
- In-hospital mortality for IBD patients with AUD/SUD increased by 129.6% (from 250 deaths per 100,000 IBD patients in 2009 to 574 deaths per 100,000 IBD patients in 2019) ($P < 0.001$).

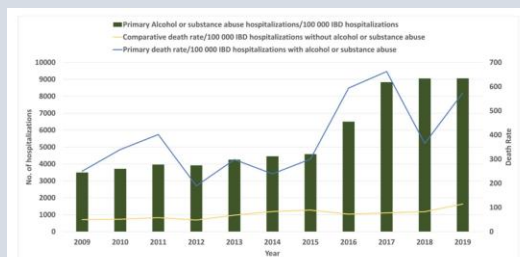


Figure 3:

Rate of Occurrence of Alcohol or substance abuse Hospitalization and Associated Mortality Compared With Mortality for Non Alcohol or substance abuse Hospitalizations for IBD patients.

Bars show the rate per 100 000 total IBD hospitalizations. The blue line shows the mortality rate in primary Alcohol or substance abuse hospitalizations per 100 000 IBD hospitalizations. The yellow line shows the comparative mortality rate in Non Alcohol or substance abuse hospitalizations per 100 000 IBD hospitalizations.

DISCUSSION

Individuals with IBD are vulnerable to AUD/SUD due to the chronic nature of the disease. IBD patients with AUD are more prone to have flares and disease progression. Opioids do not improve abdominal pain or quality of life in IBD. Our study shows that from 2009-2019, there was a tremendous increase in hospitalizations of IBD patients with AUD/SUD. AUD/SUD in the IBD population led to longer LOS, higher healthcare utilization, costs and mortality. Therefore, it is crucial to identify IBD patients who may be at risk for AUD/SUD by screening for anxiety, depression, pain or other factors leading to an impaired quality of life.

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