CLINICAL PREDICTORS OF ILEUS IN HOSPITALIZED PATIENTS WITH ACUTE PANCREATITIS: A NATIONWIDE ANALYSIS

Aalam Sohal¹, Hunza Chaudhry¹, Arpine Petrosyan¹, Armaan Dhaliwal², Gagan Gupta³, Sohail Sodhi³, Piyush Singla³, Raghav Sharma⁴, Dino Dukovic⁵, Jayakrishna Chintanaboina⁶ ¹Department of Internal Medicine, UCSF Fresno, ²Department of Internal Medicine, University of Arizona ³Dayanand Medical College and Hospital- India, ⁴Punjab Institute of Medical Sciences- India, ⁵Ross University School of Medicine- Barbados, ⁶Department of Gastroenterology and Hepatology, University of California, San Francisco-Fresno, California



Introduction

- Ileus is a well-known complication of acute pancreatitis (AP).
- Limited data exists on incidence or factors associated with ileus in patients with AP.
- We aimed to investigate the incidence and clinical predictors of ileus in hospitalized patients with AP.

Methods

- We queried the 2016-2019 National Inpatient Sample (NIS) database using the ICD-10 codes.
- All adult patients with a diagnosis of AP (ICD-10 K85) were included and those with chronic pancreatitis were excluded from the analysis.
- We studied demographics, comorbidities, complications, and interventions in patients with AP and stratified the results by the presence of ileus.
- Multivariate analysis was conducted to elucidate clinical factors associated with ileus formation in patients with acute pancreatitis.
- We adjusted for patient demographics, hospital characteristics, elixhauser comorbidities and common complications of pancreatitis.



Table 1- Forest plot depicting factors association with Ileus in patients with AP

Results

- Of the 1,386,389 adult patients admitted with AP, 50,170 (3.6%) developed ileus.
- Female gender was associated with a 44% lower risk of ileus (aOR- 0.56, 95% Cl- 0.53-0.58, p< 0.001).
- Hispanic patients had the lowest risk of ileus (aOR- 0.82, 95% Cl- 0.76-0.88, p< 0.001) while White patients had the highest risk.
- Patients between the age of 18-44 had a lower risk of ileus as compared to patients in the 45-64 (aOR-1.11, 95% Cl1.05-1.17, p< 0.001) and >65 age group (aOR-1.14, 95% Cl- 1.06-1.24, p< 0.001).
- Other factors associated with ileus include the presence of pseudocyst (aOR- 1.52, p< 0.001), sepsis (aOR-1.72, p< 0.001), and portal vein thrombosis (aOR-1.36, p< 0.001).
- ERCP was not associated with ileus development, however, pancreatic drainage was associated with a higher risk of ileus (aOR-1.21, p< 0.007).
- Patients with ileus were also noted to have a statistically significant higher mortality (a0R-1.58, 95% CI-1.43-1.75, p<0.001), length of stay (+4.9 days, 95% CI-4.63-5.12, p<0.001), total hospitalization cost (+67,855.91, p<0.001) and charges (\$16,252.6, p< 0.001).

Conclusion

- This study highlights age, gender, and racial disparities in the development of ileus in patients with AP.
- It also reveals a significant association of ileus with pseudocyst and portal vein thrombosis
- Timing of initiation of oral feeds is essential in patients with acute pancreatitis and ileus.
- Physicians should be aware of this high-risk group and consider early enteral feeding to prevent disease progression