



Acute Pancreatitis in a Los Angeles Safety Net Hospital System: Characteristics and Predictors of Readmission



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Introduction

- Acute pancreatitis (AP) is the most common gastrointestinal cause for hospital admission in the United States and may disproportionately affect minority populations.
- We aimed to characterize patients with AP and identify predictors of readmission in hospitals belonging to the Los Angeles County Department of Health Services, a large safety net hospital system.

Methods

- A county-wide database of patient encounters at Olive View-UCLA, Harbor-UCLA, and LAC+USC Medical Centers in 2017 was queried for patients with an elevated serum lipase or diagnosis matching ICD-10-AM codes K85.0, K85.1, K85.2, K85.3, K85.8, or K85.9.
- Patients were included in the study if they met at least two of the following three criteria: 1) serum lipase greater than 3 times the upper limit of normal, 2) radiographic findings suggestive of AP, or 3) characteristic abdominal pain.

- Patients were excluded if radiographic evidence of chronic pancreatitis was present.
- Outcomes included overall length of stay (LOS), mortality due to AP during the index admission, and readmission for AP or AP-related complications.
- A multiple logistic regression model was used to identify predictors of readmission for AP.

Results

- 623 patients with median age 45 years, 82.8% Hispanic, and 51.2% male met inclusion criteria for the study.
- 136 patients (24.1%) were current or former smokers, while 99 patients (15.9%) had a prior episode of AP.
- The most common AP etiology was gallstones, seen in 251 patients (40.3%), followed by alcohol, seen in 144 (23.1%).
- Radiographic evidence of acute interstitial edematous (IEP) and necrotizing pancreatitis (NP) was seen in 60.9% and 7.1% of patients, respectively.

- Greater than half of all patients with IEP developed an acute peripancreatic fluid collection (APFC), while 47.8% and 39.1% of patients with NP developed an acute necrotic collection (ANC) or walled-off necrosis (WON), respectively.
- The median LOS was 4 days (IQR 2 – 6).
- 5 patients (0.8%) died during the index admission due to an AP-related complication, while 48 (7.7%) were readmitted for AP at a median of 91 days (IQR 15 – 178) from discharge.
- Increasing age (OR = 0.97, $P = 0.038$) was associated with decreased odds of readmission for AP when controlling for sex, BMI, and presence of any local complication (APFC, pseudocyst, ANC or WON) on imaging (Figure 1).

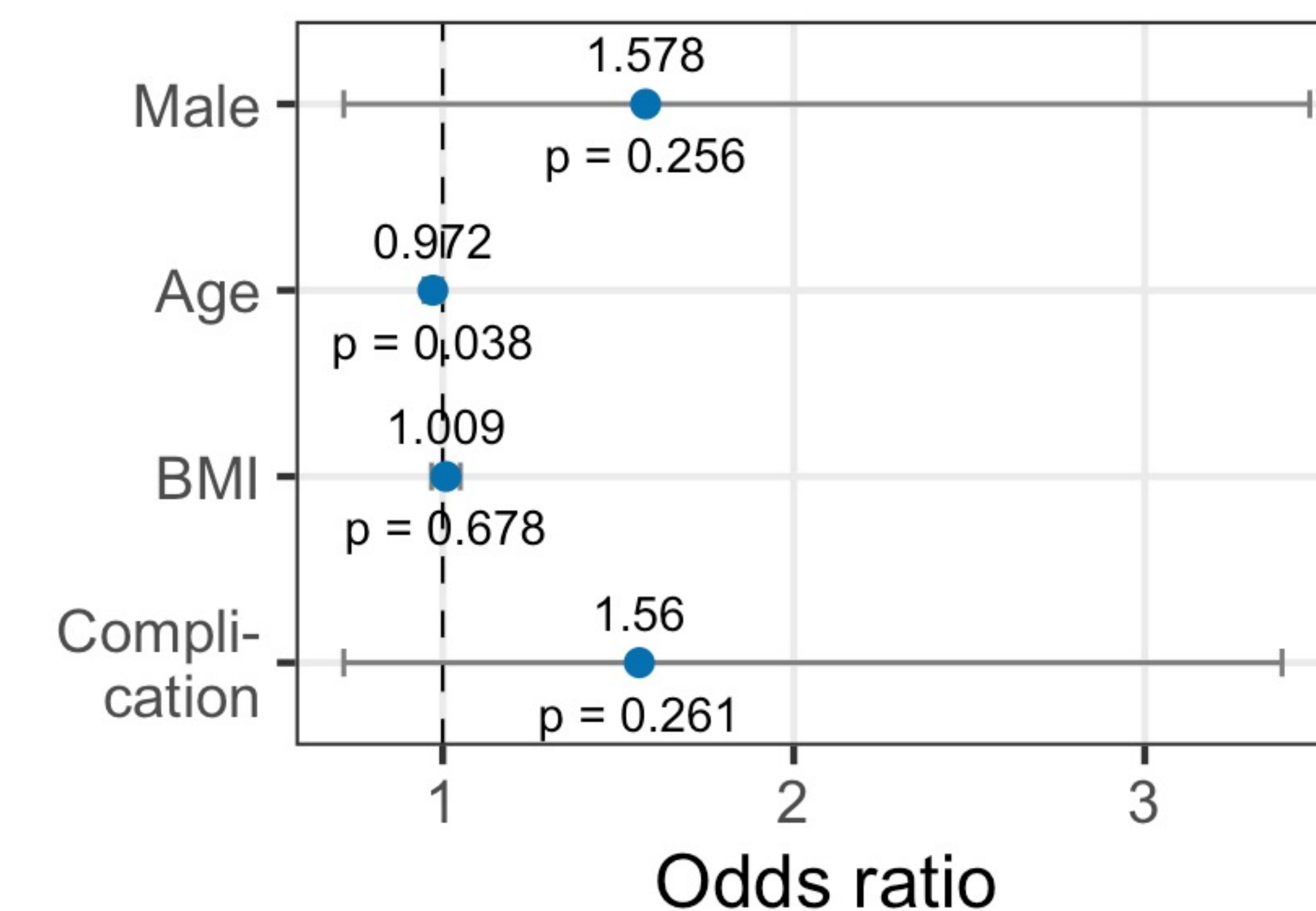


Figure 1. Predictors of readmission for AP modeled using logistic regression

Discussion

- In our predominantly Hispanic Los Angeles County safety net patient population, gallstones and alcohol were the most common AP etiologies.
- Increasing age at admission was associated with decreased odds of readmission for AP, mirroring findings reported in the literature.
- Our mortality rate was comparatively low at just 0.8%, however this may be because we did not limit our study cohort to patients with a primary diagnosis of AP.

References

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