

BACKGROUND

- Acute pancreatitis (AP) is a leading indication for hospital admission.
- The relationship between AP and diabetes mellitus (DM) is becoming increasingly recognized.
- Many patients with DM have comorbid conditions that may increase risk of severe AP or pancreatitis outcomes.
- We aim to identify the impact of DM on AP hospital outcomes including organ failure, readmission, and death.

METHODS

- We identified patients hospitalized for acute pancreatitis between January 2015 and March 2021 using our prospective observational cohort.
- We included patients who had an episode of acute pancreatitis with or without pre-existing DM.
- Outcomes of interest included severity of pancreatitis, necessity of an intensive care unit (ICU) stay, organ failure, readmission, and death.
- Logistic regression was used for analysis.

RESULTS

	No Diabetes n=1027, (76.6%)	Diabetes n=313, (23.4%)	P value	OR (95% CI)
Pancreatitis Severity				
Mild	857 (83.4%)	238 (76.0%)	0.003	
Mod/Severe	170 (16.6%)	75 (24.0%)	0.003	1.52 (1.11-2.09)
Organ Failure (any)	104 (10.1%)	54 (17.3%)	0.001	1.69 (1.16-2.44)
Respiratory Failure	81 (7.9%)	34 (10.9%)	0.100	
Circulatory Failure	20 (2.0%)	15 (4.8%)	0.006	
Renal Failure	37 (3.6%)	33 (10.5%)	<0.0001	
ICU Stay (yes/no)	138 (13.4%)	82 (26.2%)	<0.0001	2.26 (1.65-3.11)
ICU LOHS (days)	0.8	1.5	0.031	
Intubation	23 (2.2%)	16 (5.1%)	0.008	2.21 (1.13-4.35)
Vasopressors	11 (1.1%)	17 (5.4%)	<0.0001	5.06 (2.25-11.38)
RRT	9 (0.9%)	12 (3.8%)	<0.0001	4.77 (1.92-11.88)
Readmission within 30 days	116 (11.3%)	29 (9.3%)	0.312	0.79 (0.51-1.23)
Death	10 (1.0%)	12 (3.8%)	<0.0001	3.49 (1.41-8.60)

Table 1. Comparison of hospitalization outcomes for acute pancreatitis in diabetics vs. non-diabetics

*OR=odds ratio, from multivariate analysis controlling for age, gender, and comorbidities such as heart failure, chronic kidney disease, and cirrhosis

- A total of 1340 unique patients were included in the analysis.
- 313 (23.4%) of the patients had pre-existing DM while 1027 (76.6%) did not.
- The overall cohort was 46.8% female and 81.3% Hispanic.
- The mean age in the patients with pre-existing DM was 53 (\pm 14) years old, while the non-diabetic cohort was 43 (\pm 15) years old.

CONCLUSIONS

- Within our acute pancreatitis population, patients with diabetes mellitus were more likely to have both local and systemic complications as well as necessity of more invasive hospital interventions such as intubation and vasopressors compared to their non-diabetic counterparts.
- These results emphasize the importance of adequately controlling patients' underlying diabetes to minimize risk of hospital complications.