Comorbid Diabetes on Hospitalization Outcomes in Acute Pancreatitis

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Background

- Data on the association between comorbid diabetes mellitus (DM) and acute pancreatitis (AP) remains limited.
- This study was aimed to examine the impact of comorbid diabetes mellitus on patients admitted for acute pancreatitis through utilizing a large, nationwide database.

Methods

- This was a retrospective case-control study of adult patients with AP utilizing the National Inpatient Sample from 2015-2018, using ICD-10 codes.
- Hospitalization outcomes of patients admitted for AP with comorbid DM were compared to those without comorbid DM at the time of admission.
- The primary outcome was a mortality difference between the cohorts. Multivariate regression analysis was performed.

Results

- 940,789 adult patients were included, of which 256,300 (27.3%) had comorbid DM with the majority age group between 50-64 y/o *(Figure 1).*
- Comorbid DM was associated with a 31% increased risk of inpatient mortality (aOR: 1.31; p=0.004), a 53% increased risk of developing sepsis (aOR: 1.53; p=0.002), increased hospital length of stay (LOS) (4.5 days vs. 3.7 days; p < 0.001), and hospital costs ($9934 vs. $8486; p < 0.001).
- Whites admitted for AP with comorbid DM were at a 49% increased risk of mortality as compared to Hispanics (aOR: 1.49; p < 0.0001).

Figure 1.

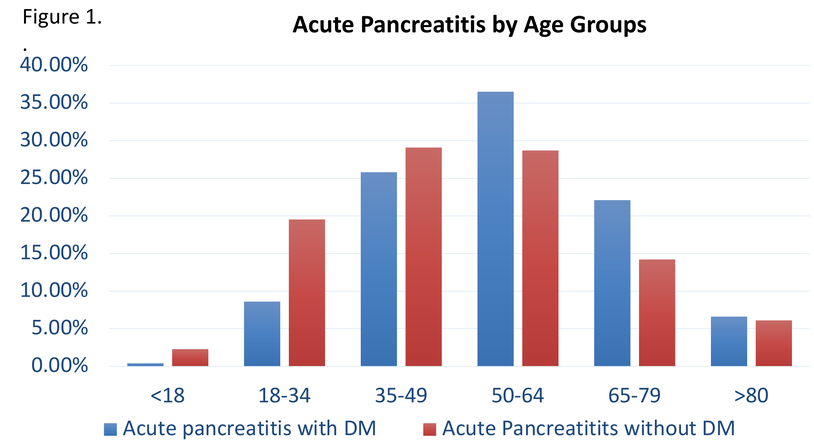
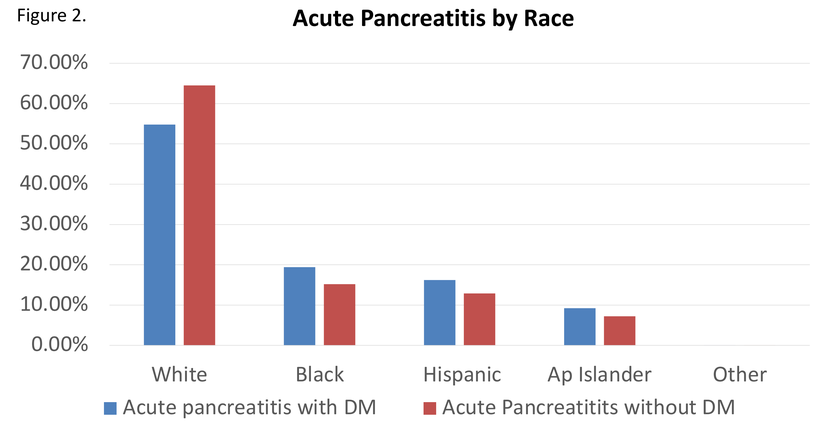


Figure 2.



Discussion

- Comorbid DM appears to be a risk factor for adverse hospitalization outcomes in patients admitted for AP with male sex and race as additional risk factors.
- Future prospective studies are warranted to confirm these findings to better risk stratify this patient population.

Future Directions

- This study hopes to increase the number of research subjects and hopefully provide more evidence to provide prognostic factors and screening and diagnostic tools with the correlation between Diabetes Mellitus and Acute Pancreatitis.