Risk Factors Associated with Acute Mesenteric Ischemia: 10- Year Retrospective Study of 10,579 Patients

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Introduction:

Acute mesenteric ischemia (AMI) is associated with a high rate of morbidity and mortality, with some reports as high as 80%. Given the high rate of mortality of this pathology, and the lack of improvement in the survival rate during the past 70 years, we sought to characterize the patients and risk factors associated with AMI in a large, state-wide retrospective study over a 10-year period.

Methods and Procedures:

A longitudinal, observational study was performed to evaluate risk factors of AMI. Using the New York State SPARCS Administrative Database, all adult patients who were admitted for AMI, between the years of 2009-2018, were identified. This group was compared to a control group which consisted of all adults admitted for reasons other than AMI during the same time period.

AMI Patients Characteristics	
Female	72.3%
Older than 70	27.7%
White	72.3%
Medicare	53.66%

Comorbidities Among AMI Patients	
PVD	9.71%
COPD	16.45%
Renal Disease	7.66%
Hypertension	66.10%
Diabetes	18.44%

Complications Amongst AMI Patients	
Anastomotic Leak	1.18%
Bacterial Disease	6.20%
Hemorrhage	3.54%
Shock	3.88%
Renal Failure	11.39%
Respiratory Arrest	6.87%
Need for Ventilation	2.55%

Results:

A total of 10,579 patients were admitted for AMI over 10 years in New York State, representing 0.12% of all hospitalized patients. Patient characteristics, comorbidities, and complications shown above. AMI patients were more likely to have comorbidities (90.06% verse 68.72% for the average hospitalized patient) and complications compared to other hospitalized patients (34.62% verse 18.72%, respectively).

Conclusions:

AMI is a relatively uncommon diagnosis, representing only approximately 0.1% of all hospital admissions, while disproportional effecting older white females with Medicare. AMI patients are also more likely to have multiple comorbidities compared to the average hospitalized patient, and to experience more complications in the hospital.

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