Low Threshold for Laparoscopic Exploration in Dementia Patients with Unexplained Abdominal Pain and Risk Factors for Acute Mesenteric Ischemia

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Introduction

- Acute mesenteric ischemia (AMI) is a surgical emergency with 50-70% mortality[1].
- Known risk factors for incidence of and/or morality due to AMI[1-2]:
  - Atrial fibrillation (AF)
  - Increasing age.
  - Diabetes
  - Atherosclerotic disease
  - Previous embolic disease
- Studies are limited on the presentation and diagnosis of AMI in dementia patients.

Case Presentation

An 88-year-old woman with dementia, hypertension, hyperlipidemia, and type 2 diabetes mellitus presented with acute onset severe abdominal pain, emesis, and altered mental status. Following admission, she developed new-onset AF with otherwise stable vitals. She had mild but diffuse abdominal tenderness. Labs were significant for leukocytosis. CT chest, abdomen, and pelvis without contrast demonstrated pneumonia, but no acute intraabdominal pathology. Treatment for pneumonia and AF ensued and she was NPO for serial exams. Her condition worsened with increasing abdominal tenderness, distension, guarding, and persistent leukocytosis, lactic acidosis, and worsening renal function. Patient had a diagnostic laparoscopy, with extensive bowel ischemia prompting conversion to exploratory laparotomy with small bowel resection and partial right colectomy (Figure 1). Patient was left in discontinuity with a temporary closure and transferred to the ICU on vasopressors. Forty-eight hours later, she underwent re-exploration, jejuno-colostomy, gastrojejunostomy tube placement, and definitive closure. She gradually improved with nutritional support via TPN and tube feeds and was ultimately discharged on day 39.

Figure 1. Resected ischemic bowel.

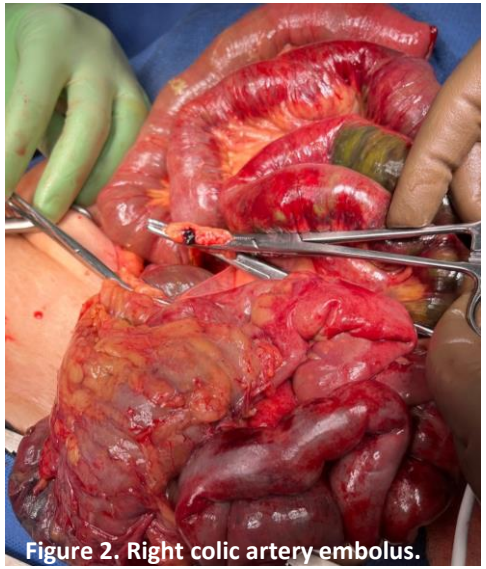

Figure 2. Right colic artery embolus.

Conclusion

- AMI is a life-threatening condition which can be difficult to diagnosis early in the course of the disease. In addition to nonspecific laboratory and imaging results, dementia, which can be a barrier to getting a reliable history, can convolute the clinical picture of AMI and contribute to a delay in diagnosis.
- In retrospect, the patient had pain out of proportion to exam and several risk factors for AMI. This should have raised the suspicion for AMI and prompted further appropriate diagnostic measures.
- In elderly dementia patients presenting with abdominal symptoms and risk factors for AMI, it is crucial to have AMI high on the differential.
- In ambiguous cases, early laparoscopic exploration could have a positive impact on mortality and morbidity.

Citations

1. Bala M, Catena F, Kashuk J, et al. Acute mesenteric ischemia: updated guidelines of the World Society of Emergency Surgery. World J Emerg Surg. 2022;17(1):54.
2. Sumbal R, Ali Baig MM, Sumbal A. Predictors of Mortality in Acute Mesenteric Ischemia: A Systematic Review and Meta-Analysis. J Surg Res. 2022;275:72-86.

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