



AAST Acute Care Surgery Didactic Curriculum

Mesenteric Ischemia

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Highlights:

- Risk factors and presentation can differ between arterial thrombosis, arterial embolism, venous thrombosis, and NOMI. Roughly 25-50% of AMI cases are due to emboli 3-10cm distal to origin of SMA with >20% having concurrent emboli to other arterial beds, like kidney or spleen. As the population ages and critical care improves, the incidence of both thrombotic disease and NOMI have increased.
- CTA is the diagnostic modality of choice, and delay in diagnosis is the dominant risk factor for mortality. Predictors of bowel necrosis can include the radiologic findings of bowel loop dilation, pneumatosis intestinalis, SMV thrombosis, free intraperitoneal fluid, portal vein thrombosis, and splenic vein thrombosis.
- Upon diagnosis: start broad spectrum abx early, nasogastric decompression, correct electrolyte abnormalities, & fluid resuscitation to enhance visceral perfusion.
- Outcomes are improved in dedicated centers with multidisciplinary teams with the goal to reduce time to reperfusion, aka "intestinal stroke centers."
- Majority of patients will require lifelong AC/AP, anticoagulation is typically given for 6 months and possibly lifelong if underlying hypercoagulability exists. Patients that underwent revascularization should have scheduled surveillance imaging with US or CTA at 1, 6, 12 months and then annually.

Controversies:

- Endovascular management is gaining favor in patients without evidence of peritonitis. With appropriate patient selection, studies are showing lower bowel resection rates and lower 30-day mortality rates in comparison to open surgery.
- Emerging hybrid technique: Retrograde open mesenteric stenting (ROMS) combines laparotomy and retrograde endovascular revascularization.
- AATS grading system for AMI was not able to be validated in subsequent studies.