SPLENIC ARTERY PSEUDOANEURYSM
An Unusual Cause for Melena
BY DANIEL KUPSKY, M.D., RAINA SHIVASHANKAR, M.D., AND CONOR G. LOFTUS, M.D., MAYO CLINIC INTERNAL MEDICINE RESIDENCY PROGRAM

Splenical artery pseudoaneurysms are uncommon and often arise as a result of pancreatic disease or trauma. They can have a wide variety of presentations, thereby making diagnosis challenging. Rupture or erosion into the bowel is the most feared complication of these pseudoaneurysms.

Case Report
A 42-year-old woman with a history of alcohol abuse, chronic pancreatitis and Roux-en-Y gastric bypass surgery presented with persistent mid-epigastric abdominal pain of several days’ duration, hypotension and melena. She was anemic with a hemoglobin of 5.1 g/dL. CT of the abdomen was performed and revealed a 6.2 x 4.7 cm pseudoaneurysm of the splenic artery, chronic pancreatitis and a thrombosed splenic vein. After she received intravenous fluids and a blood transfusion, emergent esophagogastroduodenoscopy (EGD) was performed. EGD did not reveal a source of bleeding.

A repeat abdominal CT performed 48 hours later showed aneurysmal growth to 7.5 x 8.7 cm. The patient underwent urgent coil embolization of the artery out of concern for potential rupture. Following the procedure, she had continued melena with a dropping hemoglobin. She then underwent double balloon enteroscopy of the pancreatico-biliary limb (Roux-en-Y gastric bypass) and was found to have an ulcerated site with a blood clot in the duodenum. This was caused by the pseudoaneurysm. Because she had already undergone coil embolization and was a high-risk surgical candidate, no further interventions could be performed. The patient was discharged from the hospital with a stable hemoglobin. Follow-up CT one month later indicated near resolution of the aneurysm.

Discussion
This case demonstrates erosion of a splenic artery pseudoaneurysm into the bowel that presented as an upper GI bleed. These pseudoaneurysms are uncommon, with approximately 200 recorded incidents in the literature. They can be associated with pancreatitis, pseudocysts and in rare instances peptic ulcer disease. Symptoms can include abdominal pain, melena, hematemesis and hematochezia.1 In cases involving pancreatitis, the pathophysiology is thought to be the result of pancreatic enzymes causing a direct necrotizing arteritis leading to destruction of the vessel wall.2 Direct angiography is the gold standard in diagnosis, although CT imaging can accurately identify lesions of various sizes. The natural history of these aneurysms is largely unknown, and even those as small as 2 cm have been known to rupture. Risk of rupture is 37%, and mortality rate when ruptured approaches 90%.

Splenic artery pseudoaneurysm should be considered in a patient who presents with abdominal pain, history of pancreatitis and no identifiable source of bleeding. Because of the high risk associated with splenic pseudoaneurysms, urgent management is essential, and intervention should be considered when they are identified.1

REFERENCES