Upper GI Bleed Caused by Ampullary AVM

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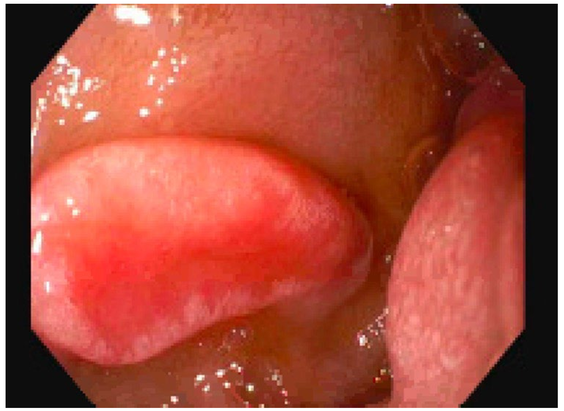
Introduction

GI bleed is responsible for 1,000,000+ hospitalizations every year, and a mortality rate of 2-10%[1]. Ampullary AVMs are an uncommon etiology of GIB and difficult from a diagnostic standpoint. We present a case of a 77-year-old man presenting to the emergency department with acute shortness of breath, chest pain, and dark stools for 4 days who was found to have an acute GI bleed caused by an ampullary AVM.

Figure 1. Ampullary AVM



Case Description

A 77-year-old white male presented to the Emergency Department with acute shortness of breath and chest pain. Past medical history included aortic regurgitation s/p valve replacement, atrial fibrillation s/p ablation and watchman, chronic anemia with baseline hemoglobin of 9, HTN, HFpEF, and ulcerative colitis s/p curative total proctocolectomy and ileostomy with modified Kock pouch procedure.

Physical exam was unremarkable aside from dark-appearing ileal pouch output. He was not on anticoagulation and denied Pepto-Bismol use. Abnormal labs included hemoglobin/hematocrit of 5.1/16.4, BUN:Cr 37:1.93, and hemoccult positive stool from ileal pouch. His presenting symptoms of anemia (chest pain, shortness of breath) were consistent with his lab findings, concerning for GI bleed in the setting of low hemoglobin.

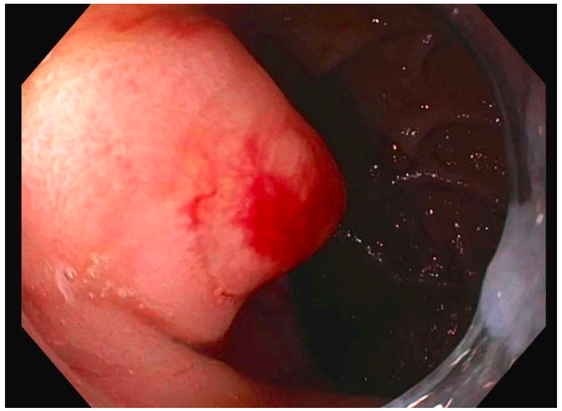
He received IV Protonix, Rocephin, and 1 unit pRBCs for acute blood loss anemia secondary to suspected GI bleed and was admitted to the hospitalist team. GI was consulted to do an EGD, which showed active bleeding around the major papilla, suggesting potential hemobilia. Subsequent CT A/P with contrast showed no clear etiology of bleed, so nuclear medicine bleeding scan was performed. The scan was unremarkable, and the patient continued to have melena, requiring 2 additional units of pRBCs. Finally, ERCP was pursued to evaluate for potential biliary source. A normal bile duct was identified via cholangiogram, measuring 10mm without filling defect. Sphincterotomy was performed, followed by bile duct sweeping using a stone extraction balloon. No blood clots were noted, making hemobilia less likely. However, slow bleeding from the inferior aspect of ampulla was visualized. The site was lavaged and appeared to be an ampullary AVM (see figure 1,2). Before ablation of the AVM, a PD stent was placed to reduce likelihood of post-ERCP pancreatitis.

Following the procedure, the patient's hemoglobin normalized, and he stopped having melenic stools. He continued PPI treatment outpatient and is doing well.

Findings

Our novel case of ampullary AVM presented similarly both clinically and endoscopically to other cases of hemobilia caused by pancreatic and BD AVMs[2]. A separate case report on small intestine AVMs (although not specifically ampullary) documents inconclusive findings using endoscopy, among other diagnostic tools, and instead suggests use of capsule endoscopy[3]. Thus, this case reports a rare finding of ampullary AVM and provides insight on diagnostic approaches in the actively bleeding patient.

Figure 2. Ampullary AVM



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References

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2. Liu X, Huang J, Tan H, et al. Hemobilia caused by pancreatic arteriovenous malformation: a case report and literature review. Medicine 2018; 97: 50.
3. Jacobson TB, Kolade VO. Massive GI bleeding in a patient with 2 small AVMs in the small intestine: a case report. Cases J 2010; 3:39.