

Image Diagnosis: Unusual Cause of Gastrointestinal Bleeding in a Young Man: Isolated Gastric Angiodysplasias

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CASE PRESENTATION

A 24-year-old man presented with 3 months of becoming easily fatigued and occasional blackish-colored stools. A complete blood count taken 1 week before presentation revealed anemia with a hemoglobin of 8.5 g/dL and thrombocytosis (platelet count of 500000/mm³), suggesting iron deficiency. The mean corpuscular volume was 70 fL, and iron profile revealed an iron saturation of 10%. The serum tissue transglutaminase antibodies were negative and stool examination revealed no ova or cysts. The patient was a nonsmoker and a nonalcoholic, and there was no family history of iron deficiency or similar complaints. The patient had no other chronic illness and was not on any medications.

Because of the presence of iron deficiency anemia with blackish stools, a gastrointestinal cause of anemia was suspected and esophagogastroduodenoscopy was performed. Endoscopy revealed multiple



Figure 1. Endoscopy image of the stomach showing gastric angiodysplasia.



Figure 2. Endoscopy image of the stomach showing multiple gastric angiodysplasias.

reddish lesions in the stomach (Figures 1 and 2) consistent with gastric angiodysplasias. Further evaluation, including push enteroscopy and colonoscopy, did not reveal similar lesions elsewhere. Capsule endoscopy of the small bowel using a Pillcam SB2 (Medtronic, Minneapolis, MN) was normal. Endoscopic banding was done for these lesions. The patient underwent repeat endoscopy 2 months later, and no angiodysplasias were seen in the stomach. He remains well. At last measurement his hemoglobin level was 14 g/dL.

DISCUSSION

Evaluation for gastrointestinal blood loss should be considered in patients with unexplained iron deficiency anemia. Gastric angiodysplasias are an uncommon cause of upper gastrointestinal bleeding. They may be associated with underlying predisposing factors like hereditary hemorrhagic telangiectasia syndrome or undergoing hemodialysis (see Sidebar: Causes of Gastrointestinal Angiodysplasia). They may present with hematemesis, melena, or

chronic gastrointestinal blood loss resulting in anemia.¹⁻⁴ Isolated gastric angiodysplasia in young patients, as in our case, are uncommon. In a report of 27 patients with blood loss caused by upper gastrointestinal angiodysplasias, the average age was 71.6 ± 10.2 years. Of these, 7 had underlying cirrhosis, 6 had renal failure, and 1 had hereditary hemorrhagic telangiectasia.⁵ Because our patient had angiodysplasia at a young age, we excluded hereditary hemorrhagic telangiectasia by clinical examination and by ruling out other lesions through using capsule endoscopy.

Treatment options include use of endoscopic therapy (argon plasma coagulation [APC] or gastric band ligation), and use of angiographic embolization has been described.^{1,3,4} Use of drugs like thalidomide (angiogenesis inhibitor), estrogen (promotes vascular integrity and reduces mesenteric blood flow), bevacizumab (antivascular endothelial growth factor), or octreotide (antiangiogenesis, antisecretory, and reduces splanchnic blood flow) may be considered in certain cases.²

Causes of Gastrointestinal Angiodysplasia

- End-stage renal disease
- Elderly age
- Hereditary hemorrhagic telangiectasia
- von Willebrand disease
- Aortic stenosis (Heyde syndrome)
- Left ventricular assist devices
- Portal hypertension (portal hypertensive enteropathy)
- Radiation enteropathy
- Turner syndrome
- Scleroderma and CREST syndrome (Calcinosis, Raynaud phenomenon, esophageal dysmotility, sclerodactyly, and telangiectasia)

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Although most endoscopists prefer APC for initial therapy of vascular lesions, a recent randomized trial conducted in patients with cirrhosis with gastric antral vascular ectasia suggested that the number of endoscopic sessions needed are reduced with use of endoscopic band ligation vis-à-vis use of APC.⁶ Comparative data on the use of band ligation and APC are lacking for other vascular lesions. Although distal gastrectomy is occasionally used for gastric antral vascular ectasia, gastrectomy for bleeding angiodysplasias is unusual because excellent effective endoscopic options are available. However, use of gastrectomy has been reported for unremitting bleeding on rare occasions.⁷ For lesions that are not accessible endoscopically, if the exact lesion responsible for bleeding cannot be identified, or in cases with recurrent bleeding episodes in individuals with multiple angiodysplasias, use of pharmacologic agents to control bleeding may be needed. Because the angiodysplasias were restricted to the stomach in our case, this was not a concern.

Our case clearly demonstrates the value of evaluating the gastrointestinal tract for any causes of blood loss in patients with unexplained iron deficiency anemia, even in the absence of overt episodes of bleeding. Evaluation may include upper gastrointestinal endoscopy, colonoscopy, and small bowel capsule endoscopy, if warranted. The presence of occult blood in stools should also prompt gastrointestinal evaluation. Additionally, our case demonstrates that such evaluation may yield unexpected yet treatable causes like isolated gastric angiodysplasia. Gastric angiodysplasia can be treated using drugs like octreotide or thalidomide. Actively bleeding lesions can be treated with endoscopic APC or banding, and unremitting cases may, on occasion, necessitate surgery (Figure 3). ❖

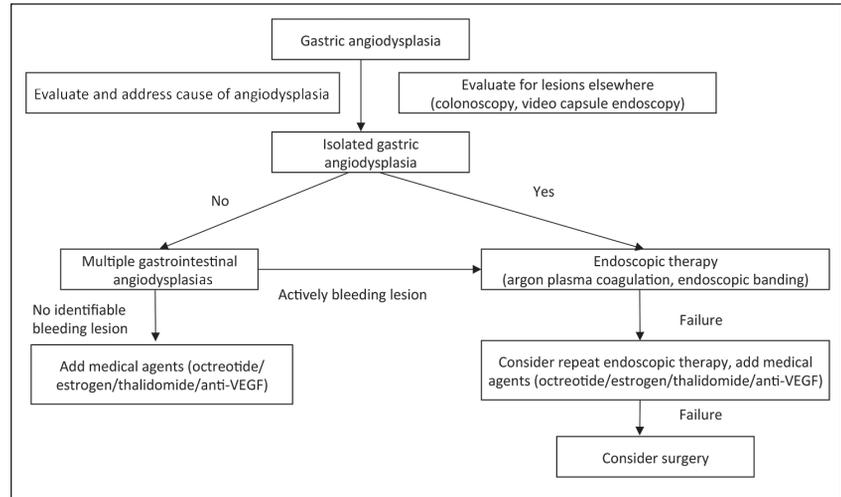


Figure 3. Suggested clinical approach to managing gastric angiodysplasia.

VEGF = vascular endothelial growth factor.

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

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