

Recurrent lower gastrointestinal bleeding due to angiodysplasia in the rectum: endoscopic treatment with heater probe

Koray Bas, Hasan Besim

Near East University Faculty of Medicine,
Department of General Surgery, Lefkosa,
Mersin-10, Turkey

Abstract

Lower gastrointestinal bleeding due to vascular abnormalities is commonly found in the elderly and on the right side of the colon. Such lesions are still difficult to diagnose and manage. We report a case with recurrent and massive lower gastrointestinal bleeding due to angiodysplasia at an unusual age and localization, which was diagnosed and treated endoscopically.

Introduction

Angiodysplasia is described as a gastrointestinal mucosal vascular ectasia with a tendency for recurrent bleeding. These vascular lesions are usually seen as flat or slightly raised red spots on mucosa. This disease is mainly found in the elderly. The exact cause of angiodysplasia is still unknown, but it is commonly believed that it is caused by degenerative changes in small submucosal vessels due to aging. In the lower gastrointestinal tract, angiodysplasias are commonly located on the right side of the colon. Today, even though many different methods are available for diagnosis and treatment, management of this vascular abnormality still presents a medical challenge and should be tailored for each individual. We report a case of recurrent massive lower gastrointestinal bleeding due to an angiodysplasia, which was located in the rectum of a young man and treated successfully with endoscopic coagulation.

Case Report

A 25-year old man was referred to our general surgery clinic with a history of recurrent rectal bleeding. He reported that he had been having recurrent cherry-color rectal bleeding unrelated to defecation. The last episode of hematochezia had been a couple of weeks previously. He was admitted to hospital with hemoglobin of 7 g/dL, which was brought up to

normal with multiple transfusions. He also reported that bleeding had ceased spontaneously during hospitalization. He was discharged and referred to our clinic for further evaluation. His physical examination was normal and laboratory tests were within normal limits. After a correct bowel preparation and appropriate sedation, total colonoscopy was achieved. A solitary, reddish-color rectal lesion was found 20 cm proximally from the anal verge. It was 5 mm in diameter and pulsatile, slightly raised on mucosa and surrounded by dilated mucosal vessels without bleeding (Figure 1). There was no additional abnormality detected in other parts of the colon. The lesion was cauterized by an endoscopic heater probe circumferentially in the same session without complication. The whole procedure took 35 min and after recovering from the sedation the patient was discharged. On day 13 after the procedure, controlled video sigmoidoscopy was performed and scar tissue was observed with surrounding normal mucosa (Figure 2). Fifty-five days after coagulation, the lesion was found to be completely healed (Figure 3). There was no rectal bleeding at the 6-month follow up.

Discussion

In the lower gastrointestinal tract, angiodysplasias are mostly located on the right side of the colon. According to a prospective study of 1,938 patients, only 14% of colonic angiodysplasias were located in the rectum. Endoscopic appearance of these lesions was mainly solitary, flat, smaller than 5 mm in diameter, with a homogeneous structure and regular border.¹ The exact cause of angiodysplasia is still unclear, but it is widely accepted that it is related to degenerative changes in small submucosal vessels due to aging. Another possible explanation is long-term mucosal local hypoperfusion from a cardiac, vascular or pulmonary disease. Gupta *et al.* reported that, in a study of 32 patients, 69% with colonic angiodysplasia were older than 65 years, 28% had coagulopathy, and 25% had cardiac valvular disease.² It is rarely seen in children.³ Roskell *et al.* demonstrated a deficiency of mucosal vascular collagen type IV in angiodysplasia of the colon.⁴ In the lower gastrointestinal tract, angiodysplasia may be present with occult blood in the stool, hematochezia or massive hemorrhage. Many methods are available for diagnosis, such as selective mesenteric angiography, 99 m Tc-labeled red blood cell scintigraphy, computed tomography-angiography, wireless capsule or video endoscopy. Video colonoscopy is the most common diagnostic method. During endoscopy band ligation, clip application,

Correspondence: Koray Bas, Department of General Surgery, Near East University Faculty of Medicine, Lefkosa, Mersin-10, Turkey.
Tel. +90.542 877.60.75 - Fax: +90.392.675.10.90.
E-mail: drkoraybas@yahoo.com

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Figure 1. Angiodysplasia in the rectum.

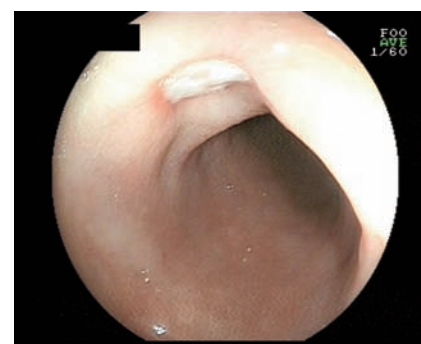


Figure 2. Scar tissue; day 13 after coagulation.

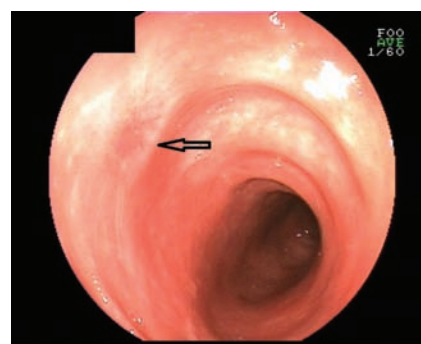


Figure 3. Healed lesion; day 55 after coagulation.

coagulation or laser photocoagulation can be used for treatment in selected patients. In patients with acute hemorrhage, selective angiographic embolization or selective infusion of vasopressin may be chosen to control massive bleeding. Surgical procedures such as colectomy for angiodysplasia must be considered as the last stage therapeutic option in those patients with life-threatening uncontrollable hemorrhage.

In conclusion, angiodysplasia in the rectum is a rare disorder, which can be easily diagnosed and managed endoscopically in the same session in most patients. Therefore,

endoscopic examination is an essential tool for diagnosis and treatment in patients with rectal hemorrhage.

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