

Endoscopic Treatment of Bleeding Ileal Pseudodiverticulum

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ABSTRACT

Objective: Jejunoileal bleeding is not common, with diverticular disease as the fourth common cause of gastrointestinal tract bleeding. However, the diagnosis is sometimes challenging and easily overlooked.

Case presentation: This is a case of a 71 years old lady presented with hematochezia. A bleeding ileal pseudodiverticulum was found and successfully controlled by endoscopic treatment.

Conclusion: Bleeding ileal pseudodiverticulum is an uncommon cause of lower gastrointestinal bleeding which can be treated endoscopically.

Keywords: Ileal pseudodiverticulum; lower gastrointestinal bleeding; endoscopic (Siriraj Med J 2018;70: 357-358)

INTRODUCTION

Diverticulum is the outpouching of mucosa of the hollow viscus organ, mostly in gastrointestinal tract. It is classified as, 'true diverticulum', in which the outpouching sac is covered by the whole layer of gastrointestinal wall, and, 'false or pseudodiverticulum', in which the outpouching sac is not covered by the whole layer. The latter is more common, and mostly encountered in the colon of elderly patients. Patients with diverticular disease usually are asymptomatic or might present with bleeding, infection or perforation.¹

Although bleeding colonic diverticulum is the most common causes of lower gastrointestinal bleeding,² bleeding from ileal diverticulum is uncommon and might easily be overlooked. We present an uncommon case of lower gastrointestinal bleeding, in which the endoscopic treatment was successfully performed.

CASE PRESENTATION

A 71 years old woman with the underlying type 2 diabetes, hypertension, and dyslipidemia receiving clopidogrel 75 mg once daily as a prophylaxis for cardiovascular event presented to the hospital with hematochezia. Her vital signs were normal and initial examinations revealed a low hemoglobin level of 9.6 mg/dl. Other laboratory examinations were remarkable.

Emergent colonoscopy (PCF H190, Olympus Medical System, Tokyo, Japan) was performed after rapid colonic purge and a small diverticulum, 3 mm in size, located within 2 cm from the ileocecal valve was seen. Non-Meckel pseudodiverticulum was the most likely diagnosis due to the small size and the location just proximal to the ileocecal valve. Blood clot inside the diverticulum was removed (Fig 1a) and a visible vessel with blood oozing was seen (Fig 1b). Hemostatic clips (EZ clip HX-610-090L, Olympus Medical System, Tokyo, Japan) were applied across the mouth of the diverticulum and the bleeding stopped (Fig 1c). The patient did not experience any recurrent bleeding during several months of follow-up and her hemoglobin level has improved.

Review of literature

Small intestine diverticular is much less common than colonic diverticular. The most common and well-known congenital diverticulum of the small intestine is Meckel diverticulum which may cause lower gastrointestinal bleeding, obstruction, perforation, inflammation, or volvulus.³ Other false diverticulum were found mostly in duodenum surrounding the ampulla, followed by the jejunum and the ileum, respectively.^{4,5} Most cases of small intestine pseudodiverticulum were asymptomatic, but several reports of complications of both acute complication

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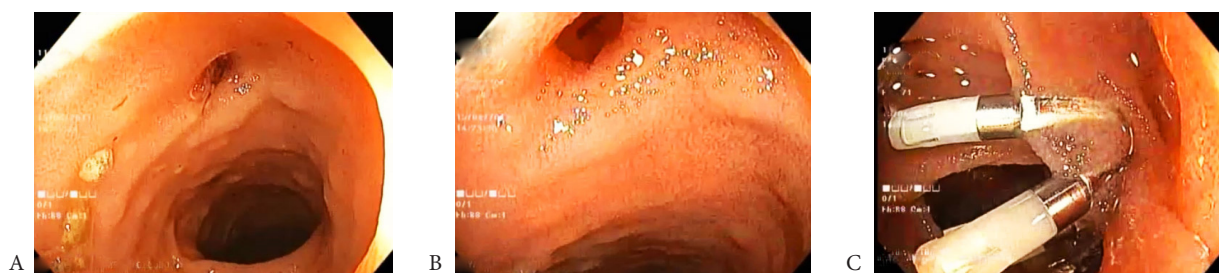


Fig 1. The blood clot within the terminal ileal diverticulum (A). After the clot was removed, a visible vessel with blood oozing was seen (B) and hemostatic clipping was performed and the bleeding was stopped (C).

(such as bleeding, perforation, and infection) and chronic (such as pain and malabsorption) have been published.⁶

Gastrointestinal bleeding from the jejunoileal area is uncommon, with diverticular disease as the fourth common cause of bleeding.⁷ The diagnosis of this condition is more difficult than colonic diverticulosis due to limited accessibility to the lesions by routine endoscopy. The identification of bleeding jejunoileal pseudodiverticular diseases using wireless capsule endoscopy, contrast-enhanced computed tomography (CT), and CT angiography have been reported in several literatures.⁸⁻¹⁰ Among the reports of bleeding ileal diverticulum, the most common cause is bleeding from Meckel's diverticulum. However, in this case, according to the location and the size, the diagnosis of pseudodiverticulum was more suggestive. Similar to the criteria for diagnosis of bleeding colonic diverticulum, retaining blood clot was seen in the pseudodiverticulum, which is the definite diagnostic criteria for the diverticular bleeding.¹ However, sometimes the bleeding point might be difficult to identify especially in cases with multiple diverticulum. In a case report of bleeding from multiple jejunal diverticulum the bleeding point could not be identified, so no intervention was provided and the bleeding stopped spontaneously.⁸

Treatment of bleeding in small intestinal diverticular in most literatures included both surgery and endoscopic treatment such as injection therapy, hemocliping and heater probe.⁹⁻¹¹ Endoscopic treatment in these case series were delivered through upper GI endoscopy for duodenal diverticular bleeding and double balloon enteroscopy in ileal bleeding.^{10,11} In another series, after the bleeding point was identified, either by CT scan or angiography, exploratory laparotomy was performed.⁹ However, most of these reports were case reports or small case series. In the author's opinion, the treatment options should be individualized according to the location of the diverticulum and severity of bleeding. In cases presented with GI bleeding, routine upper and lower endoscopies are usually performed and the endoscopic treatment could be applied if the lesion could be demonstrated. However, in those cases that the bleeding point could not be reached by routine endoscopic examination, treatment

attempts should be made based on the same principle as obscure overt GI bleeding patients. Capsule enteroscopy, device assisted enteroscopy, or angiography should be considered as the first diagnostic modality which depends on the bleeding activity.¹² In this case, fortunately, the lesion was located very close to the ileocecal valve so the endoscopic procedure was possible.

In conclusion, the author reported a case of ileal pseudodiverticular bleeding, which was successfully stopped by endoscopic clipping.

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