

Case Report

Unusual Source of Gastrointestinal Bleed and Endoscopic Management

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ABSTRACT

Gastrointestinal (GI) bleeding due to jejunal diverticula is very rare. Capsule endoscopy is a useful diagnostic tool for localizing the bleeding site, but single-balloon enteroscopy is a good therapeutic modality for the management. Here, we report two cases, in whom the cause of GI bleeding was jejunal diverticula and they managed successfully with endoscopic management.

KEYWORDS: Hemoclip, jejunal diverticula, melena

INTRODUCTION

Diverticula are sac-like protrusions of the bowel wall. It can occur throughout the intestine, though large intestine is more common. Incidence of jejunal diverticula is less common than other part of intestine. Jejunal diverticula are usually multiple and asymptomatic, but sometimes they present as abdominal pain, hemorrhage, diverticulitis, obstruction and perforation.

CASE REPORTS

Case 1

A 69-year-old female presented with complaints of melena for 2 weeks. She had a history of melena 10 months ago and needed blood transfusion for low hemoglobin, but she was not evaluated further. On evaluation, she was hemodynamically stable with normal general and systemic examination, except mild pallor. On laboratory investigation, there was microcytic anemia with hemoglobin of 6.8 g/dl. She underwent upper gastrointestinal (UGI) endoscopy which revealed duodenal diverticula without evidence of bleed. Colonoscopy was performed which showed normal study. Capsule endoscopy showed blood in the jejunal and ileal loops; however, no active source was localized. Hence, she underwent antegrade single-balloon enteroscopy (SBE) which showed multiple diverticula in the jejunum and one of which showed fresh blood with clot which was removed using a Roth Net [Figure 1]. After repeated washing, there was visible vessel [Figure 2]. Hemoclips were applied and hemostasis was achieved [Figure 3].

She was clinically stable and there was no hemoglobin fall. She was discharged in stable condition with the advice of hematinic. She is doing well on 6-month follow-up.

Case 2

An 83-year-old male presented with complaints of melena for 2 days. On evaluation, he was hemodynamically stable with normal general and systemic examination, except pallor. Laboratory investigation revealed iron deficiency anemia with hemoglobin of 8.6 g/dl. UGI endoscopy was normal and colonoscopy revealed melenic stools in the terminal ileum without any bleeding source. Hence, possibility of small bowel source was considered and he underwent capsule endoscopy which showed proximal small bowel bleed [Figure 4]. Antegrade SBE was carried out which showed two diverticula in the proximal jejunum, one of which showing active bleed; two hemoclips were applied and hemostasis was achieved. There was no hemoglobin fall during hospital stay and he was discharged in stable condition with the advice of hematinic. On 3-month follow-up, he is doing fine.

DISCUSSION

Diverticula are sac-like protrusions of the bowel wall and occur throughout the small and large bowel. Jejunal diverticula are the least common type of small

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Access this article online

Quick Response Code:



Website: www.jdeonline.in

DOI: 10.4103/jde.JDE_21_16

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How to cite this article: Choudhary NS, Bansal RK, Puri R, Gupta MK, Patil G, Shah V, *et al.* Unusual source of gastrointestinal bleed and endoscopic management. J Dig Endosc 2018;9:74-6.

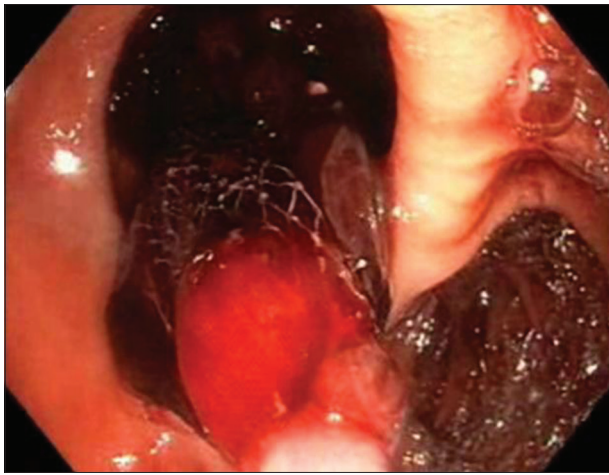


Figure 1: Roth Net removal of clot with evidence of fresh blood in jejunal diverticula



Figure 2: Visible vessel with clot



Figure 3: Hemoclips in jejunal diverticula



Figure 4: Capsule endoscopy image showing jejunal diverticular bleed

bowel diverticula with an incidence of $<1.5\%$.^[1] Jejunal diverticula are usually multiple and localized to the proximal jejunum. By enlarge, jejunal diverticula are asymptomatic; however, sometimes, they present as abdominal pain, hemorrhage, diverticulitis, obstruction, and perforation.^[2-4]

Jejunal diverticula contribute 8% of all small bowel diverticula and are associated with diverticula in other areas, with colonic involvement observed in up to half of the cases.^[5] Most cases of jejunal diverticula are observed in patients aged 60–70 years.^[1] Although the true etiology of jejunal diverticulosis is unknown, it is believed to develop from a combination of abnormal peristalsis, intestinal dyskinesia, and high segmental intraluminal pressure. Jejunal diverticula are the false diverticula, which occur along the mesenteric border of the intestine, where blood vessels pierce the muscularis layer of the bowel wall, causing weak areas to develop. These weak areas lead to herniation of mucosa, submucosa, and serosa while excluding the muscularis layer.

Laboratory studies tend to be nonspecific, but an elevated white blood cell count with shift to left favors complication such as diverticulitis or perforation. Computed tomography scan may identify jejunal diverticula as thickening, inflammation, or localized abscess formation.^[2,3] Endoscopic procedures, such as SBE or double-balloon enteroscopy and capsule endoscopy, are very useful for diagnosis.^[6] Diagnostic laparoscopy can be required in patients with a complication, thus avoiding the need for unnecessary laparotomy.

Management of jejunal diverticula depends on the presenting symptom. It is advised that asymptomatic diverticula found incidentally should be left alone.^[6,7] Surgery is required in approximately 8.5% of all patients with jejunal diverticula, although it increases to 40% in symptomatic patients.^[8] Resection of the surrounding small bowel with primary anastomosis is recommended for complicated diverticula. Simple diverticulectomy is not recommended because it has been linked to postoperative leakage, sepsis, and death.^[9]

CONCLUSIONS

Jejunal diverticula are a rare entity; majority is asymptomatic. However, they may lead to GI bleeding as presented in our both the cases. Jejunal diverticula, especially in elder persons, can lead to significant morbidity and mortality and so should be suspected early.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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