

## Case Report

# Rectal Dieulafoy's Lesion: An Underrecognized Cause of Lower Gastrointestinal Bleeding

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ABSTRACT

Dieulafoy's lesion is a rare but potentially a life-threatening condition. It accounts for 1%–2% of acute gastrointestinal (GI) bleeding. The lesion is most frequently located in the stomach and may be located anywhere in the alimentary tract. It can be present as severe GI bleeding or chronic GI blood loss. The cause of lesion remains uncertain. The range of clinical presentation varies from acute ill hospitalized patients as well as in the newborn.

**KEYWORDS:** *Dieulafoy's lesion, endoscopic therapy, endoscopic ultrasound, rectum*

## INTRODUCTION

Dieulafoy's lesion is an underrecognized cause of gastrointestinal (GI) bleeding characterized by large-caliber artery that protrudes through the mucosal defect. It is a rare cause of GI bleeding (1%–2%), though it has been suggested that this may underrecognize the actual incidence due to lack of identification of the lesion.<sup>[1]</sup> Five percent of the lesions are estimated to occur in the colon and rectum.<sup>[2]</sup> The right side of the colon is most commonly involved.<sup>[2]</sup> I present here a case of a 60-year-old male presented to the emergency department with a chief complaint of bleeding per rectum for 2–3 days which is bright red and diagnosed as having Dieulafoy's lesion in the rectum. The lesion was successfully treated with injection adrenaline.

## CASE REPORT

A 60-year-old male presented to the emergency department with a chief complaint of bleeding per rectum for 2–3 days which is bright red. He was a known case of diabetes mellitus and ischemic heart disease and on aspirin and metformin along with lipid-lowering agent. There was no history of alcohol abuse. On examination, he had tachycardia with the blood pressure of 100/70 mmHg. Per rectal examination and proctoscopy showed some blood. Blood chemistry revealed hemoglobin of 8 g/dL, and the rest of the blood investigations were normal. Sigmoidoscopy was performed and showed 10 mm raised, red-pigmented protuberant lesion with surrounding

small ulceration consistent with Dieulafoy's lesion in the rectum [Figure 1]. The lesion was treated with 4 ml injection of adrenaline (1:10000). The patient was discharged on the 4<sup>th</sup> day without evidence of recurrent bleeding. The full-length colonoscopy was performed on follow-up at the end of 1 month which revealed no significant abnormality. The patient was in follow-up for 1 year without recurrence.

## DISCUSSION

Dieulafoy's lesion is an underrecognized cause of GI bleeding characterized by large-caliber artery that protrudes through the mucosal defect. The lesion is most frequently located in the stomach within 6 cm of the gastroesophageal junction followed by duodenum, distal stomach, and esophagus.<sup>[3,4]</sup> Colon, rectum, and anal canal are rare locations.<sup>[2]</sup> Seventy-five percent of cases presented with upper GI bleeding without melena, 21% with only melena, and only 3% presented with bleeding per rectum.

It was first reported by Gallard in 1884 but was more precisely described by the French surgeon, Georges Dieulafoy in 1898.<sup>[5]</sup> It is more common in males as compared to females and present at a mean age of 52 years. The cause of lesion remains uncertain. The

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**How to cite this article:** Yagnik VD. Rectal dieulafoy's lesion: An underrecognized cause of lower gastrointestinal bleeding. *J Dig Endosc* 2017;8:202-4.

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DOI: 10.4103/jde.JDE\_15\_17



**Figure 1:** Protuberant 10 mm red-pigmented lesion

range of clinical presentation varies from acute ill hospitalized patients as well as in the newborn.<sup>[1]</sup>

The causes of lower GI bleeding are summarized in Table 1.<sup>[6]</sup>

Endoscopy either upper GI or colonoscopy is the first investigation depending on the suspected location of the bleeding. Pigmented protuberance from the vessel stump, with minimal surrounding erosion and no ulceration which is 10–15 mm wide and 5–10 mm high are typical endoscopic findings.<sup>[7]</sup> Endoscopic ultrasound (EUS) enables the visualization of small lesions that could not be visualized endoscopically because there was no active bleeding at the time of the endoscopy or because the lesions were not visible because of their location deep in the GI tract wall.<sup>[8]</sup> Mesenteric angiography is particularly useful in the lesion of the colon and rectum where massive bleeding and inadequate preparation precludes the visualization of lesion.<sup>[1]</sup>

The current endoscopic modalities of treatment include injection, ablation, and mechanical. Endoscopic injection therapy most commonly involves adrenaline, sclerosant, and cyanoacrylate glue. Ablation therapy includes thermocoagulation, electrocoagulation, and argon plasma coagulation. The mechanical therapy uses either band or hemostatic clip.<sup>[7]</sup> EUS can be used both to identify and treat bleeding lesion.<sup>[8]</sup> EUS linear probe guided the placement of a needle into a vascular malformation and subsequent injection of glue to block the lumen of the vascular lesion.<sup>[8]</sup> In rebleeding, successful hemostasis can be achieved with repeat endoscopic therapy.

Mechanical treatments such as band ligation or hemostatic clipping have been considered the first line of management for Dieulafoy's lesion.<sup>[9]</sup> The rebleeding rate is reported between 9% and 40%.<sup>[1]</sup> The rebleeding

**Table 1: Causes of lower gastrointestinal bleeding (Hreinsson 2013)**

Cause	Percentage
Diverticulosis	23.3
Hemorrhoids	10.4
Neoplasm	10.5
Angioectasia	3.1
Ischemic colitis	16
IBD	11.7
Small bowel	3.1
Others	11
Unknown	9.2
Postpolypectomy	1.2
Colonic polyps	3.1
Endoscopic therapy	7.4
Emergency surgery	0

IBD=Inflammatory bowel disease

rate is higher after monotherapy as compared to multiple techniques used to achieve control over-bleeding.<sup>[10]</sup>

## CONCLUSION

Dieulafoy's lesion should be considered in the differential diagnosis of lower GI bleeding in all age groups. Colonoscopy is highly useful in diagnosis and management of the lesion in the majority of patients with rectal Dieulafoy's lesion. EUS enables the visualization of small lesions that could not be visualized endoscopically because there was no active bleeding at the time of the endoscopy or because the lesions were not visible because of their location deep in the GI tract wall.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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