# Cecal Dieulafoy's Lesion Masquerading as Polypoidal Bleeds: A Case Report

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## ABSTRACT

Dieulafoy's lesion is an unusual cause of recurrent gastrointestinal (GI) bleeding, especially in the lower GI tract. This report describes a case of a bleeding Dieulafoy's lesion of the cecum, in which the diagnosis was made by complete colonoscopy. In spite of encountering the most likely cause of lower GI bleed during colonoscopy, it was due to a resolve to do complete colonoscopy that the primary cause of the bleed was found. Three hemostatic metallic clips controlled the bleeding successfully. This case emphasizes a need for an open mind for the possible etiology of lower GI bleeding even when encountering more obvious and more common causative lesions.

Key words: Dieulafoy's lesion; Gastrointestinal bleeding; Colonoscopy

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## INTRODUCTION

Lower gastrointestinal bleeding (LGIB) is defined as blood loss from gastrointestinal tract distal to the ligament of Treitz [1]. There are multiple etiologies for LGIB such as diverticulosis, ischemia, hemorrhoids, polyps and colorectal cancer [2]. Dieulafoy's lesion (DL) is an unusual cause of recurrent gastrointestinal (GI) bleeding [3]. It consists of a large caliber, tortuous artery, 1-3 mm in diameter, that lies in the submucosa but in close contact with the mucosa over a variable distance. Massive bleeding can occur with erosion of the mucosa and arterial wall [4]. We present a case of LGIB in which this rare entity was responsible for the bleeding.

## CASE REPORT

A 72-year-old Caucasian male presented to the emergency department with complaint of massive bleeding per rectum for one day. He noticed bright red blood in the toilet bowl 3 times. He denied any abdominal pain, nausea, vomiting, diarrhea or constipation. There was no prior history of bleeding per rectum. There were no other significant complaints and review of systems was otherwise unremarkable. Patient had a past medical history of moderate hypertension, coronary artery disease with a coronary arterystent (on 81 mg of aspirin and 75 mg of clopidogrel) and a recently diagnosed deep vein thrombosis (DVT) for which he was on Coumadin with INR goal of 2.5.

On physical examination, the patient was hemodynamically stable and the only finding was hemoccult positive stool. On initial presentation, the patient's hemoglobin (Hb) was 13.7 gm/dl (normal low 12.9 gm/dl), INR was 8.4 (normal <1.5) with an elevated blood urea nitrogen of 48 (normal high 20 mg/dl) and serum creatinine of 2mg/dl (normal <1.17mg/dl). Initially, the patient was managed conservatively with serial monitoring of Hb and reducing the INR. The patient was given oral vitamin K to reverse the INR and Coumadin was held. A bleeding scan on delayed images demonstrated diffuse tracer activity throughout the colon consistent with intermittent LGIB. The bleeding site could not be determined due to the constant migration of bowel contents. Colonoscopy was deferred until the INR was normalized. Patient continued to bleed intermittently and Hb dropped to 9.3gm/dl. Once the INR was 1.9 and Hb continued to trend downward, an emergent colonoscopy was performed. Patient was given 2 units of fresh frozen plasma and 1 unit of packed red blood cells before the procedure.

Colonoscopy revealed fresh blood, diffuse diverticulosis and multiple colonic polyps (5 polyps 5mm to 1 cm in size) throughout the colon. The cecum was full of fresh and clotted blood (Figure 1) which after cleaning revealed a small caliber bleeding vessel (Figure 2). Three hemostatic metallic clips were placed with successful control of the bleeding (Figure 3). No

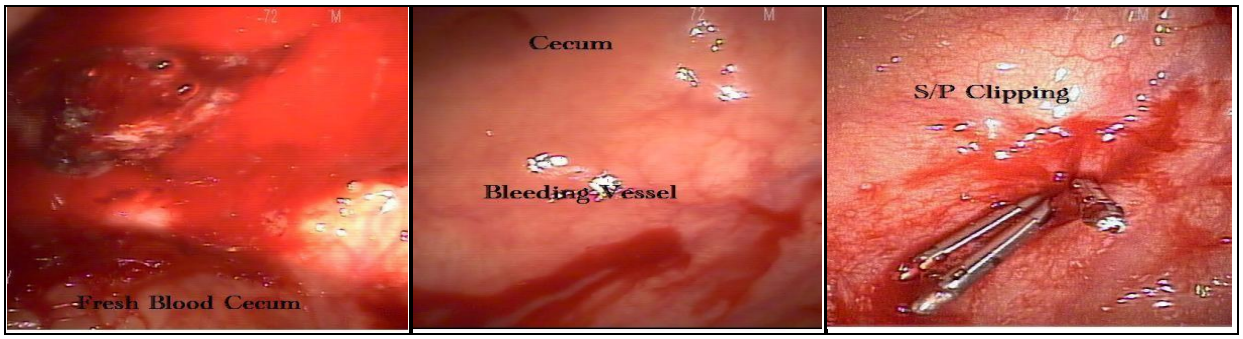


**Figure 1:**Endoscopic view of the bleeding lesion
**Figure 2:** Endoscopic view of the cecum
**Figure 3:** Hemostatic metallic clips

more episodes of bleeding per rectum were observed after colonoscopy and Hb remained stable. Patient underwent an inferior vena caval filter placement for his DVT before discharge from the hospital. He was advised to continue low dose Coumadin and close monitoring of his INR. Aspirin and clopidogrel were discontinued on discharge. Follow-up of up to three months has not revealed any repeat episode of bleeding per rectum and Hb has remained stable. Patient will soon be scheduled for a repeat colonoscopy to remove the polyps, which were not removed during emergent colonoscopy.

## DISCUSSION

Dieulafoy's lesion is an uncommon cause of LGIB. The majority (i.e. 75 to 95%) of these lesions are gastric in origin, making cecal DL an extremely rare and interesting entity. There have been several reported cases of bleeding DLs in the esophagus, duodenum, jejunum, and colon. These lesions, also called *caliber-persistent arteries of the stomach* or *cirsoid aneurysms*, are believed to be large-caliber arteries in the submucosa or mucosa with an overlying mucosal defect [5, 6, 7, 8]. Studies have indicated that the frequency of DL in the colon is up to 10%. Of these, the most frequent location is the rectum (42%), followed by the cecum (17%) and ascending colon (17%). Similar to DLs in other locations, colonic DLs are prevalent in middle-aged or elderly patients, and more common in males [9].

The pathogenesis of Dieulafoy's lesion is still unknown. It may have a congenital origin while some may be acquired [10]. Acquired causes may include use of anti-platelet agents and anticoagulants. Patient can usually present with recurrent symptoms of painless GI bleeding.

Diagnosis can be made by different modalities based on the location of bleeding. Patients presenting with lower GI bleed from an unknown source generally initially undergo a complete colonoscopy. There are 3 endoscopic criteria that classify DLs. These include 1) active arterial bleeding from a minute mucosal defect, 2) visualization of a protruding vessel with or without active bleeding, and 3) the appearance of a fresh clot with an attachment to a mucosal defect or mucosa of normal appearance [12]. The vessels have a tendency to retract in the submucosa making DL difficult to locate. Our case fulfilled all these diagnostic criteria and was managed by the gold standard treatment i.e. hemoclipping [8, 9, 10, 11]. The other therapeutic modalities include thermocoagulation, adrenaline injections, bipolar and monopolar electrocoagulation, heater probe, laser photocoagulation, injection sclerotherapy, and endoscopic band ligation [9]. Surgery and selective arterial embolization are reserved as last resort and only if the lesion is refractory to the above treatment options [13, 14].

## CONCLUSION

This case emphasizes the importance of prompt and complete colonoscopy in LGIB with an open mind for the possible etiology of lower GI bleed.

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