

## CLINICAL VIGNETTE

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# Bleeding Dieulafoy's Lesion in the Colon

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### *Case Presentation*

A 69-year-old male was seen for inpatient evaluation with a chief complaint of dark stools. He had a past medical history of HIV, end stage renal disease (on hemodialysis), renal cell cancer (status post excision and radiation), and autoimmune hepatitis. He was initially admitted for fever and altered mental status. He was found to be septic secondary to a right upper extremity wound growing gram negative rods. He was treated with piperacillin and tazobactam.

Three days after admission to the hospital, he had one episode of bright red blood per rectum. His dose of aspirin was held. Later that day, the patient had an additional three episodes of dark red stool. He was started on intravenous pantoprazole. He denied any symptoms of nausea, vomiting, hematemesis, abdominal pain. Prior to the overt bleeding, his hemoglobin was 8.5, which then dropped to 7.4 after the bleeding. On repeat testing it was 6.5.

Of note, he had a reported large gastrointestinal bleed 18 years prior to this presentation, with no defined etiology. He also had a history of melena nine years prior and underwent esophago-gastroduodenoscopy (EGD), which showed gastric and duodenal ulcers. He then had recurrent melena six months prior to the current hospital admission. At that time, EGD showed ulcers and erosions in the duodenal bulb, without active bleeding. His most recent colonoscopy was 15 years prior.

For evaluation of his current bleeding, he underwent EGD and colonoscopy. The EGD was unremarkable, without any bleeding source identified. The colonoscopy showed fresh and old blood with clots, throughout the colon. However, no bleeding source was identified. The patient then underwent mesenteric angiography, without identification of any bleeding source. Due to continued bleeding, the following day he underwent CT angiogram, which suspected that the source of bleeding might be in the right colon. The patient then underwent repeat colonoscopy, which showed a bleeding Dieulafoy's lesion in the proximal transverse colon. The lesion was successfully treated with endoclips, with complete hemostasis achieved. The patient had no further bleeding episodes and his hemoglobin remained stable. He was discharged from the hospital two days later and has remained stable in follow up.

### *Discussion*

This case illustrates a less common and more difficult to identify source of gastrointestinal bleeding, a Dieulafoy's lesion. A Dieulafoy's lesion is defined as an aberrant submucosal vessel that erodes the overlying epithelium and occurs in the absence of an associated ulcer.<sup>1</sup> This is an arterial lesion and is often very dilated compared with the caliber of typical submucosal arteries. They are more commonly found in the stomach, but have also been identified in the esophagus, small bowel, and colon.<sup>2-5</sup> There is no clearly defined etiology and no specific identifiable triggers for bleeding. While the bleeding episodes may be spontaneous and resolve quickly, they can also be very severe and recurrent.

The best diagnostic test for identification of a Dieulafoy's lesion is endoscopy. Although these lesions may be relatively easily seen when there is active bleeding, they can be notoriously difficult to identify when there is no active bleeding. In the absence of bleeding, they may appear as a raised bump or visible vessel. In select situations, endoscopic ultrasound may assist in the diagnosis.<sup>5</sup>

There are various modalities that may be used to achieve hemostasis, including epinephrine injection with cauterization or endoclip placement.<sup>6-8</sup> Historically, thermal coagulation was the treatment of choice for achieving hemostasis. However, the rebleeding rates have been reported as high as 50%. Mechanical hemostasis has been found to be more effective compared with injection therapy alone in achieving initial hemostasis, reduced recurrent bleeding and reduced need for emergency surgery.<sup>9</sup> Endoscopic band ligation has also been used, but has a significantly higher complication risk.<sup>10</sup> For these reasons, mechanical hemostasis with endoclip placement is considered to be one of the preferred methods for the treatment of bleeding Dieulafoy's lesions. There are various options for treatment if rebleeding occurs after initial endoscopic hemostasis. These options include repeat attempt at endoscopic hemostasis vs. angiographic embolization vs. surgical resection.

In summary Dieulafoy's lesions should always be considered in cases of obscure overt gastrointestinal bleeding. Once identified, they generally respond well to initial endoscopic hemostasis. However, close monitoring is required to assess for potential rebleeding after initial treatment.

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