

Dieulafoy Lesion of Ileum: A Case Report

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ABSTRACT

Dieulafoy lesion is a rare cause of massive GI bleeding. It's an abnormal sub-mucosal artery protruding from a minute mucosal defect (≤ 3 mm). A 31 yearold male presented with complaints of hematochezia. Preliminary investigations failed to locate the exact source of bleed. Enteroscopy suggested distal ileal bleed. At laparotomy, an ulcerated nodular lesion, approximately 0.5 cm was identified in distal ileum. 30 cm of ileum along with mesentery was resected. Histology revealed it to be Dieulafoy lesion. Dieulafoy lesion is uncommon but one of the causes of obscure gastrointestinal bleeding that could result in treacherous and life-threatening gastrointestinal haemorrhage. This lesion is difficult to identify and high index of suspicion is required to make diagnosis. Hence, it should be considered in the differential diagnosis of active GI bleeding. The definitive diagnosis is based only on histopathology.

Keywords: ileum; dieulafoy; gastrointestinal; hemorrhage.

INTRODUCTION

Dieulafoy lesion (DL), also called calibre persistent artery/ submucosal arterial malformation, is a rare cause of massive GI bleed (0.3–6%)¹. Awareness of this condition, early endoscopy and histopathological examination is the mainstay of diagnosis. Herewith, we report a rare case of lower GI bleed secondary to an ileal Dieulafoy lesion in a young male.

CASE REPORT

A 31 year male presented to emergency department with complaints of passage of blood mixed stool since 5 days. There were three episodes of passage of moderate volume bright red blood per rectum. There was no associated nausea, vomiting, diarrhea, abdominal pain, loss of weight or appetite. He had no past history of GI hemorrhage prior to presentation.

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Colonoscopy revealed blood clots within the bowel, with no obvious bleeding source. Enteroscopy revealed blood clots in distal ileum. Ultrasound abdomen and CT abdomen were inconclusive. Exploratory laparotomy was done and intra-operatively, distal ileum was cut along the anti-mesenteric border to localize the bleeding source. Ileal segment was sent for histopathological examination.

On gross examination, an ileal segment of 30 cm length and 8 cm in circumference was received. Outer surface of the ileum was unremarkable. On cut section, a tiny brownish nodular area approximately 0.5cm was identified. Rest of the bowel appeared grossly unremarkable. Blood clot was present within the bowel lumen.

On microscopy, sections from the nodule revealed a large calibre artery in the sub-mucosa eroding the overlying mucosa with hemorrhage and fibrinous exudate. Lamina propria appeared to be attenuated. The lumen of the artery was obliterated by an organising thrombus. The arterial wall was unremarkable. Sections from the other areas

of ileum showed congested blood vessels in the submucosa, patchy acute and chronic inflammatory infiltrate and hemorrhage. Sections from mesentery showed hemorrhage. A diagnosis of Dieulafoy lesion of ileum was rendered.

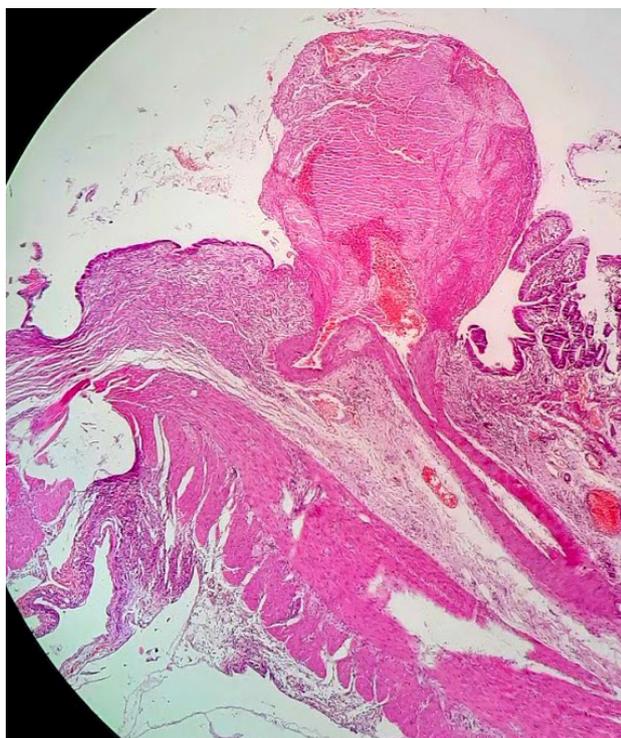


Figure 1. Microscopic picture showing large calibre artery in the sub-mucosa eroding the overlying mucosa with hemorrhage and fibrinous exudate

DISCUSSION

Aneurysms of gastric vessels (Dieulafoy disease; caliber-persistent artery) are thought to be malformative rather than degenerative in origin. They are usually single, located in the submucosa, usually high on the lesser curvature, and characterized by a large tortuous vessel surmounted by a small defect in the overlying mucosa. When the lesion perforates, massive and sometimes fatal hemorrhage may result.²

A Dieulafoy lesion remains asymptomatic unless mucosal erosion exposes the

underlying artery, causing it to bleed. Normally, a network of musculoelastic fibers surrounds and tethers the big branches of arteries entering the submucosa to the muscularis propria.³ Because the artery reaches close to the muscularis mucosae in Dieulafoy disease, such fibers hold the artery to the muscularis mucosae as well. There is no free, overlying submucosa to allow movement of the mucosa over the submucosa, and the pulsations of the artery cause mucosal damage. Mucosal erosions expose the artery, predisposing it to further injury and bleeding. Also, the artery raises the mucosa overlying it, making it vulnerable to injury.⁴

Microscopically, the submucosal artery is seen impinging on, and often eroding through, the muscularis mucosae. Apart from this artery having an abnormally large caliber at this site, there is no obvious abnormality of the arterial wall, and there is no vasculitis. The lesion is usually a single one and always shows an elastic lamina. Only the overlying mucosa shows erosion, and the surrounding mucosa appears normal histologically.⁵ If the artery has bled, an attached thrombus may be seen.⁶

Ileal Dieulafoy lesion is a rare entity and can cause life-threatening hemorrhage and should be considered in differential diagnosis of GI bleeding. An aggressive multidisciplinary approach including radiologic intervention, enteroscopy, surgery and histopathological examination is required for proper diagnosis and treatment.

CONSENT: Case Report Consent Form was signed by the patient

CONFLICT OF INTEREST: None

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