

An Interesting Case of Gastrointestinal Bleeding Resulting from Dieulafoy's Lesion

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Abstract Dieulafoy's lesion (DL) is a relatively rare, but potentially life-threatening condition. It accounts for 1-2% of acute Gastrointestinal (GI) bleeding. DL is an uncommon, but important cause of gastrointestinal bleeding in which hemorrhage occurs from a pinpoint, non-ulcerated arterial lesion. [1] DLs are usually located in the stomach, most commonly in people between the ages 50 and 70 years. [2] We present a case of GI bleeding resulting from Dieulafoy lesion of the stomach, successfully treated with endoscopic intervention.

Keywords: Dieulafoy's lesion (DL), Gastrointestinal (GI) bleed, endoscopy

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1. Introduction

A Dieulafoy's lesion in the GI tract originally described by French surgeon Dieulafoy as exulceratio simplex in 1898, is a rare but important cause of GI bleeding. [2] The incidence of acute GI bleeding ranges from 50-150 per 100,000 of the population each year. Dieulafoy's lesion (DL) is one of the causes of obscure GI bleeding that could result in treacherous and life-threatening Gastrointestinal hemorrhage. It is difficult to interpret its true incidence in the general population accurately as they are silent until presentation and even then, it can pose a diagnostic challenge.[3]

2. Case Description

A 59-year-old male with Past Medical History of alcohol abuse, DM type 2, Hypertension and depression presented to the Emergency Department (ED) with chief complaints of black tarry stool. He denied hematochezia or hematemesis. He was not on anti-coagulation and denied chronic use of NSAIDs. Vitals remained stable. Initial labs were remarkable for Hemoglobin (Hb) 4.9 and Hematocrit of 15. He was transfused 2 units Packed Red Blood Cell (PRBC), started on Pantoprazole infusion and admitted to the medicine floor for further management. GI was consulted and he underwent EGD which showed a bleeding Dieulafoy's lesion in the stomach which was successfully treated with hemostatic clips x 3. His Hb remained stable after endoscopic intervention.

3. Discussion

A DL is a vascular abnormality corresponding to a dilated and tortuous submucosal artery that retains a large caliber as it reaches the mucosa. It is an otherwise structurally normal vessel, with no associated atherosclerosis or inflammation, and it is surrounded by histologically normal mucosa. It has been proposed that the pulsations of the artery disrupt the overlying epithelium, ultimately resulting in erosion and bleeding. DLs are generally thought to be an acquired condition, mainly because they seem to be more common in the elderly. These lesions occur more frequently in males and in the setting of comorbidities such as cardiopulmonary dysfunction and chronic kidney disease. The use of aspirin, warfarin, or non-steroidal anti-inflammatory drugs has been reported in half of patients bleeding from DLs, although no causal link has been established.

Endoscopically, a DL is defined by the presence of either 1) arterial spurting or micro pulsatile streaming, 2) a protruding vessel or 3) a fresh clot, associated with a normal surrounding mucosa or a minimal mucosal defect. The large majority of DLs are found in the stomach, typically 6-10 cm from the gastroesophageal junction along the lesser gastric curvature.

Approximately one-third of all DLs are extra-gastric, most frequently located in the duodenum and colon. Jejunal location was traditionally considered very rare (< 1%), but some recent reports suggest that it may be more common than previously estimated, particularly the proximal jejunum. DLs usually present as severe overt gastrointestinal bleeding, frequently with hemodynamic instability. [4]

Add'l Images:

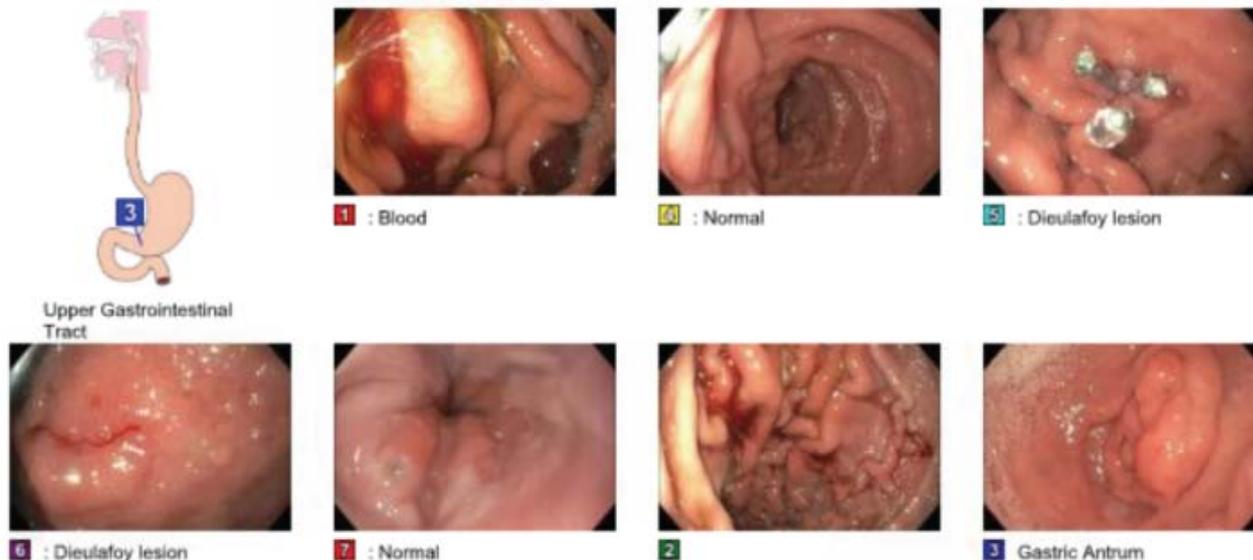


Figure 1.

Although there is no consensus on the treatment of Dieulafoy's lesions; treatment options depend on the mode of presentation, site of the lesion, and available expertise. Endoscopic therapy is usually successful in achieving primary hemostasis, with hemostasis success rates reaching 75% to 100%. Although various therapeutic endoscopic methods are used to control bleeding in Dieulafoy's lesions, the best method for endoscopic intervention is not clear. Combination endoscopic therapy is known to be superior to monotherapy because of a lower rate of recurrent bleeding. In addition, mechanical therapies including hemostatic clipping and endoscopic band ligation are more effective and successful in controlling bleeding than other endoscopic methods.

4. Conclusion

Advances in endoscopic techniques have reduced mortality in patients with Dieulafoy's lesion from 80% to 8 % and consequently, the need for surgical intervention

has been reduced. There are several endoscopic therapeutic methods available, however, the best modality for management of a bleeding DL has not been clearly demonstrated. Currently, surgical intervention is used for cases that fail therapeutic endoscopic or angiographic intervention. [2]

References

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