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Case Report

A rare case of duodenal Dieulafoy's lesion managed by endoscopic band ligation

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ABSTRACT

Dieulafoy's lesion is an uncommon but important cause of recurrent upper gastrointestinal bleeding. Extragastric location of Dieulafoy's lesion is rare. We report a case of duodenal Dieulafoy's lesion which was successfully managed by banding. Fifty-year-old presented with recurrent upper gastrointestinal (GI) bleed and severe anemia with history of multiple blood transfusions and OGD scope showed dieulafoy's lesion in the second part of duodenum (D2), which was successfully managed by banding. Endoscopic diagnosis of extragastric Dieulafoy's lesion can be difficult because of the small size and obscure location of the lesion. Increased awareness and careful and early endoscopic evaluation following the bleeding episode are the key to accurate diagnosis. Banding is one of the safest, cost effective endoscopic modalities for control of bleeding.

Keywords: Dieulafoy's lesion, Duodenal Dieulafoy's, GI bleed, Banding

INTRODUCTION

Dieulafoy's lesion (DL) is a rare but important cause of gastrointestinal (GI) bleeding.[1] Majority of DL are located in the stomach within 6 cm of the gastro-esophageal junction and rarely seen in other parts of the GI tract.[1-3] We report a case of recurrent massive upper GI bleeding from a duodenal DL. The endoscopic appearance, difficulty in the diagnosis of this lesion and its management have been discussed in this report.

CASE REPORT

50-year gentlemen with no previous history of alcohol or NSAID usage, presented with severe anemia and recurrent episodes of hematemesis and melaena for 5-months duration. History of multiple hospital admissions with transfusion of 22 units of blood (PRBC) during the last 5 months. Multiple upper GI endoscopy done elsewhere, found fresh blood in duodenum with no ulcerations in stomach or growth but couldn't identify source and exact site. Colonoscopy and CT abdominal angiogram was done before referral, which was normal. On examination he had tachycardia and severe pallor with Hb of 2.1 gm%. He was resuscitated with blood products and taken up for OGD. OGD showed a single sub mucosal pulsatile bleeding vessel in the lateral part of D2, no ulcerations – duodenal dieulafoy's lesion (Figure 1).

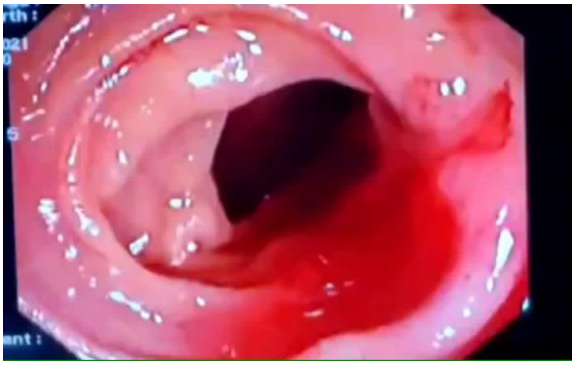

Figure 1: Dieulafoy's lesion in D2.

Endoscopic band ligation (EBL) was done, bleeding was well controlled (Figure 2). Currently, the patient is doing well with no re bleeding after 18 months of follow up.

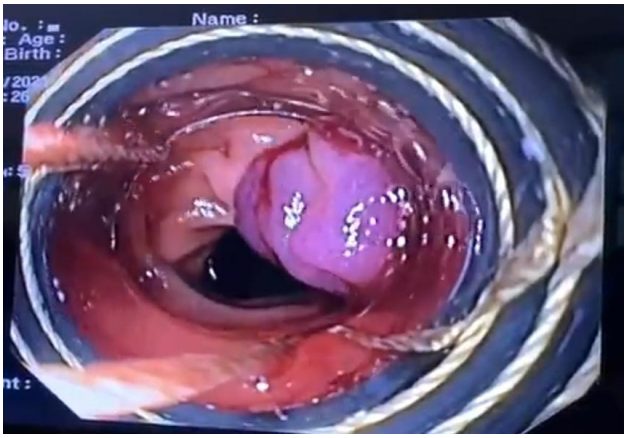

Figure 2: Banding of the lesion.

DISCUSSION

DLs are common in the stomach and primarily seen on the lesser curvature, within 6 cm of the gastro-esophageal junction, accounting for 75–95% of cases.[1] Veldhuyzen examined more than 100 DL cases but discovered no duodenal lesions.[3] The first case of duodenal DL was recorded in 1988.[3] DL in the esophagus, jejunum, colon, and rectum have been reported. Due to greater knowledge of the illness, extragastric DLs have been discovered more frequently lately.[4,5] One third of the extragastric lesions in a large series of 89 patients with DLs were extragastric. The most typical location for extragastric DLs was the duodenum (18%), followed by the colon (10%), the jejunum (2%), and the oesophagus (2%).[5] An excessively large diameter chronic tortuous submucosal artery is the primary cause of the lesion, which has the same pathophysiology throughout the gastrointestinal system.[6]

The endoscopic criteria proposed to define DL are: active arterial spurting or micro pulsatile streaming from a minute mucosal defect or through normal surrounding mucosa, protruding vessel with or without active bleeding within a minute mucosal defect or through normal surrounding mucosa, and fresh, densely adherent clot with a narrow attachment to a minute mucosal defect or to normal appearing mucosa.[8] The lesion was missed on OGD done elsewhere, which could be attributed to the tiny clot obscuring the lesion that had stopped bleeding. Every patient with unexplained, recurring, significant GI bleeding should be evaluated for DL because it is an intrinsically challenging lesion to detect. As was the case with this patient, there was no history of NSAID usage, acid peptic illness, or alcohol misuse.[1,3] In past studies, only 50% of patients had their diagnosis at the time of their initial endoscopy. A repeat endoscopy was used to diagnose one-third of the lesions, with the remaining two methods being intraoperative or angiography. In recent data, more than 90% of cases are identified during the initial endoscopic examination. In addition to early endoscopy, which aids in identification, attentive endoscopy and better understanding of the pathology have helped in achieving this.

Therapeutic endoscopy is the modality of choice for the initial treatment of DLs.[1,4,6,9] EBL has been cited as a DL therapy option that is efficient, secure, straightforward, and affordable.[10] Injections of adrenaline have been utilised as a stand-alone treatment or in conjunction with other endoscopic methods. Other endoscopic hemostatic methods include bipolar and monopolar electrocoagulation, heater probe, laser photocoagulation, injectable sclerotherapy, and hemoclipping.[1,6] Thermo and electrocoagulation techniques are more suited for gastric DL and run the risk of transmural damage in thin walled organs like the duodenum.[1] A DL is an excellent candidate for hemoclipping due to the regular surrounding mucosa.[8] According to Nikolaidis and colleagues, 96% (n=22/23) of patients with Dieulafoy-like lesions treated with EBL, reported satisfactory control of bleeding.[7] According to Chung et al, mechanical hemostasis techniques including EBL and hemoclipping were more effective than injectable techniques for stopping bleeding and preventing recurrent bleeding in patients with DLs.[10] Current statistics indicate that less than 5% of cases require surgical ligation for failed endoscopic treatment.[1,6,7]

CONCLUSION

To conclude, duodenal DL is an uncommon but important cause of recurrent and significant upper GI bleeding. Increased awareness and early endoscopy during a bleeding episode are essential for accurate diagnosis. Endoscopic band ligation is an important and safe technique to control the bleeding effectively.

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