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Case Report

Duodenal dieulafoy injury: case report

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ABSTRACT

Dieulafoy's lesion is a rare but important cause of upper or lower gastrointestinal bleeding, resulting from bleeding from a large arterial vessel. Its extragastric location is rare and the diagnosis is usually endoscopic, allowing simultaneous treatment either with injection of sclerosing substances or by mechanical means. We present the case of a 72-year-old woman with severe gastrointestinal bleeding with Dieulafoy's lesion in the duodenal bulb, successfully diagnosed and treated endoscopically.

Keywords: General surgery, Dieulafoy injury, Case report

INTRODUCTION

Upper gastrointestinal hemorrhage secondary to a Dieulafoy lesion has a low incidence of 2 to 5%.[1] 75% of these lesions are located in the proximal stomach and the remaining 25% are extragastric, with duodenal, colonic and rectal lesions standing out in order of frequency.[2,3]

CASE REPORT

A 72-year-old woman with a history of liver failure for 15 years and chronic alcoholism since her youth, suspended more than 12 years ago, was admitted to the emergency department due to the presence of sudden hematemesis, as well as melenic evacuations.

On initial physical examination, the patient was in fair general condition, with the presence of generalized integumentary pallor, heart rate (HR): 112 bpm, respiratory rate (RR): 17 rpm, SaO_2: 90%, A.R. of 80/60, oral cavity with blood remains, soft abdomen, not painful on palpation, no signs of peritoneal irritation and digital rectal examination with melenic traces.

Admission hemoglobin 5.3 g/dl and hematocrit of 15.9%, follow-up blood count 24 hours after transfusion of erythrocyte concentrates haemoglobin (Hb) 8.5 g/dl, haematocrit (Ht) 24.5%. Once the state of shock was subsided, upper gastrointestinal endoscopy was performed, and the following findings were reported: At the level of the duodenal knee, where the first and second portion are joined, a pulsatile bleeding vessel is observed on the posterior aspect (Figure 1) with a jet at the apex of the vessel whose vessel body emerges through a hole in the mucosa without ulcer about 0.5 cm in diameter and the Angled vessel reaches 4 mm in height towards the duodenal lumen.

Treatment

The application of an adrenaline solution (1:10,000) was carried out with a partial reduction in bleeding, so an

injection of hystoacryl (Figure 2) was administered, corroborating the total hemostasis. Endoscopic control at 48 hours, with no data of active bleeding, only data of mucosal edema. Patient with satisfactory evolution was discharged with an appointment after outpatient consultation.

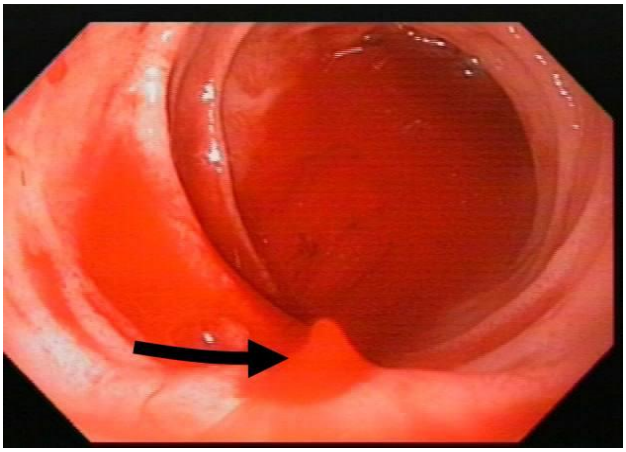

Figure 1: Pulsatile bleeding vessel (black arrow) in second duodenal portion.

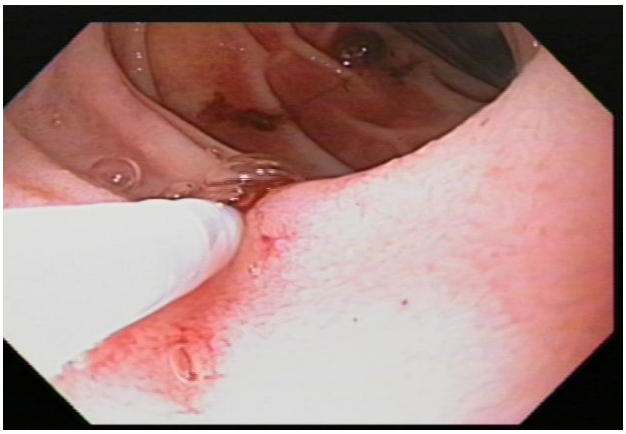

Figure 2: Administration of hystoacril at the site of bleeding.

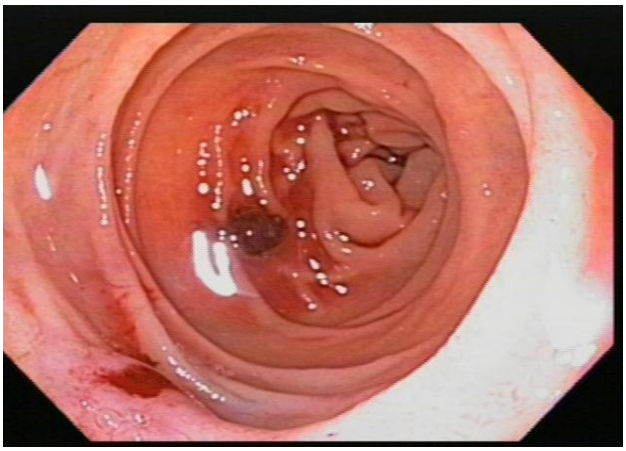

Figure 3: Remitted bleeding.

DISCUSSION

Described by Gallard in 1884 as a miliary aneurysm of the stomach; and later, by the French surgeon Georges Dieulafoy when he reported three fatal gastric hemorrhages in asymptomatic young men.[4-6]

Dieulafoy's lesion consists of a histologically normal, large arterial vessel that abnormally maintains its caliber (1-3 mm) along a sinuous path from the submucosa to the mucosa, where it penetrates through a minimal defect.[2,3]

The condition is well documented in patients aged between 50 and 70 years with a predominance of the male sex in a ratio of 2:1.[7,8]

The link between systemic diseases such as liver cirrhosis, chronic renal failure, and vascular lesions in the digestive system is well known. It is possible that this type of systemic disorder alters normal angiogenesis and conditions the appearance of aberrant arterial neovessels of persistent caliber that, under conditions of stress of the digestive mucosa, can erode and cause hemorrhage.[9]

These patients present acutely with massive and sometimes recurrent bleeding. The most common symptoms are massive hematemesis, melena, hematochezia, no abdominal pain.[10]

Initial endoscopy is effective in diagnosing up to 70%; however, more than one endoscopic examination may be required to establish the diagnosis.[11]

The proposed endoscopic criteria for defining LD are: active or micropulsatile arterial bleeding from a minimal mucosal defect with normal surrounding mucosa, visualization of a protruding vessel, with or without active bleeding, within a minimal mucosal defect or through the surrounding normal mucosa, and fresh clot, attached with a tight attachment point to a minimal mucosal defect or normal-appearing mucosa.[12]

Endoscopic management of these lesions has become the standard for treatment, with success rates as high as 95%.[9]

Endoscopic options range from the injection of adrenaline and/or sclerosing substances, the use of high-energy devices (electrocoagulation and laser photocoagulation), as well as mechanical therapy (hemoclips and band ligation).[14-16]

Currently, there is no consensus on the superiority of one method over another, and more than one author suggests the combination of mechanical and sclerotic therapy, thus reducing the incidence of rebleeding compared to monotherapy.[17-19]

Surgical resection is reserved for 5% of cases that are refractory to endoscopic management or angiographic methods.

CONCLUSION

Dieulafoy's lesion is a pathology that should be considered as a diagnosis in all patients with upper gastrointestinal bleeding, endoscopy is the method of choice for the diagnosis and treatment of this entity. Surgery is reserved for patients with uncontrollable bleeding with endoscopic and angiography embolization methods.

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