

Mini-Review

Gastric Ulcer Gastric Ulcer: A Rare Cause of Massive Digestive Hemorrhage about a Histologically Confirmed Observation

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Abstract

The ulcer of Dieulafoy is a rare cause of massive digestive hemorrhage that can be fatal. Bleeding occurs from a vascular abnormality defined by the presence in the submucosa of an abnormally large aberrant artery. Gastric localization is the most frequently reported, but rare cases have been confirmed on pathological examination.

We report the case of a 32-year-old man operated on urgently for a massive upper digestive hemorrhage, threatening the vital prognosis and not allowing to localize the lesion with the endoscopic examination. A gastric ulcer of Dieulafoy was diagnosed in per operative, treated with wedge resection and confirmed on histopathological examination.

Keywords: Ulcer of Dieulafoy; Hemorrhage; Stomach

Introduction

The ulcer of Dieulafoy was initially described by Guallard in 1884 then by George Dieulafoy in 1897 [1]. It is a rare lesion responsible for 1% to 2% of digestive hemorrhages, sometimes serious and potentially life-threatening [2]. The ulcer of Dieulafoy is defined by the presence in the submucosa of an artery of abnormally wide caliber of 1 mm to 5 mm in diameter, which is 10 times its usual size [3-6]. Its preferential localization is gastric, 80% of lesions sit at 10 cm below the esogastric junction [3].

Digestive endoscopy makes it possible to make the diagnosis in the hemorrhagic period and to ensure the hemostasis by thermal or mechanical methods (clips, elastic ligature). Surgical treatment is the last option in patients with uncontrolled hemorrhagic recurrence or an unidentified hemorrhagic site; it consists of performing a surgical resection with the "wedge resection" vascular anomaly.

We report a case of cardiac localization Dieulafoy simplex ulcer, revealed by massive upper gastrointestinal bleeding, diagnosed intraoperatively and confirmed on histopathological examination. The characteristics of the lesion, the diagnostic circumstances and the therapeutic means are discussed.

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Observation

A 32-year-old man has been hospitalized for melaena with severe anemia, has no significant antecedent, and does not report a concept of taking nonsteroidal anti-inflammatory drugs. Two days before admission he had had a high digestive hemorrhage and was transfused with 3 globular lesions.

On admission, the clinical examination showed cutaneo-mucous pallor, a stable hemodynamic state, a supple abdomen and the presence of black blood in the rectal examination. Biological investigations found hypochromic microcytic anemia with hemoglobin at 7 g/dl, platelet count at 150000/mm³, prothrombin at 85% and normal hepatic and renal function.

Upper endoscopy showed no gastroesophageal or esophageal or oesophageal varices, there was no blood or recent bleeding stigmata.

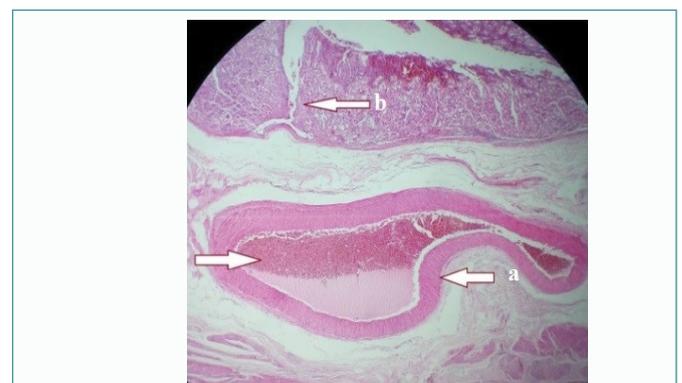


Figure 1: Ulcer of Dieulafoy HE x40.
1a: Submucosal artery of calibre large.
1b: Loss of epithelial substance.

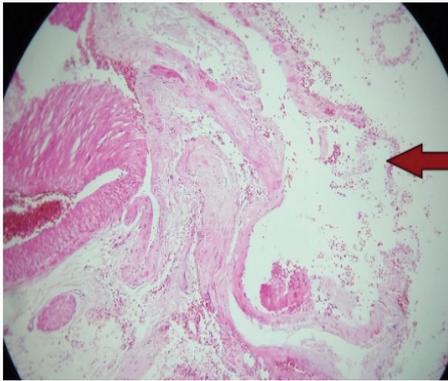


Figure 2: Ulcer of Dieulafoy HE x400 Isolated mucosal erosion and presence of blood in the submucosa.

The patient was transfused with two red blood cells, 24 h after admission, had a hematemesis of high abundance associated with signs of hypovolemic shock with a blood pressure of 70/40 mmHg, a tachycardia at 120 beats/min, sweating and deglobulization at 4.5 g/dl of hemoglobin, necessitating transfusion of 4-globular cells and infusion of macromolecules for hemodynamic stability.

A second upper gastrointestinal endoscopy was performed urgently in the operating room in this patient in a precarious hemodynamic state and under hemodynamic support. This was difficult because of the presence of abundant red blood from the fundus and the existence of multiple blood clots filling all the gastric lumen; it did not allow to objectify the gastric lesion at the origin bleeding.

Urgent surgery was decided, intraoperatively and after gastrotomy, the extraction of several blood clots to see an active jet bleeding in the sub-cardial region from small erosion, evoking the diagnosis of an ulcer of Dieulafoy. A partial resection removing the lesion arterial was performed.

The histopathological study of the operative specimen confirmed the diagnosis of Dieulafoy's lesion by showing the existence of a loss of substance limited to the mucosa eroding a submucosal arteriole of abnormally large caliber.

The patient was seen again, he did not present any hemorrhagic recurrence with a retreat of 2 years.

Discussion

The lesion of Dieulafoy is a vascular anomaly which corresponds to the presence in the submucosa of an abnormally large artery [1-4]. The mechanism of bleeding is poorly known, it would be related to an erosion of the mucosa by pressure-related ischemia exerted by this

aberrant artery [4]. It is a rare lesion; it represents 6% of non-varicose gastrointestinal hemorrhages and is considered the main etiology of digestive hemorrhage of obscure origin [5].

The ulcer of Dieulafoy is more common in the elderly with co-morbidities. The average age of onset is 50 years, with male predominance [3], unlike our young patient without any pathological antecedent.

The preferential localization is gastric in two thirds of cases, a few rare locations have been reported, 18% in the duodenum, 2% in the jejunum and 2% in the esophagus [6].

The gastric ulcer of Dieulafoy is most often manifested by recurrent, sometimes massive, life-threatening digestive hemorrhage. Digestive endoscopy represents the gold standard for the diagnosis of this lesion, in the presence of jet bleeding.

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