Hemoclip Placement as Definitive Therapy for Bleeding from a Dieulafoy Lesion

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Dieulafoy's lesion is responsible for 2–7% of the cases of significant upper gastrointestinal hemorrhage. Diagnosis by endoscopy is particularly difficult because bleeding is often massive and obscures the lesion, and frequently there is no large overlying ulcer to mark the spot through which the submucosal artery has penetrated and bled [1,2]. We present a case of Dieulafoy bleeding that was successfully treated with gastric hemoclips.

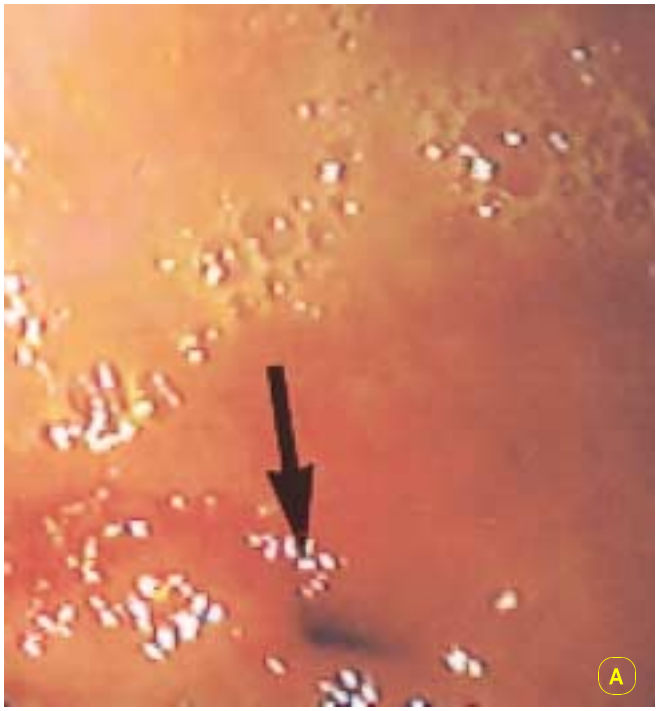
Patient Description

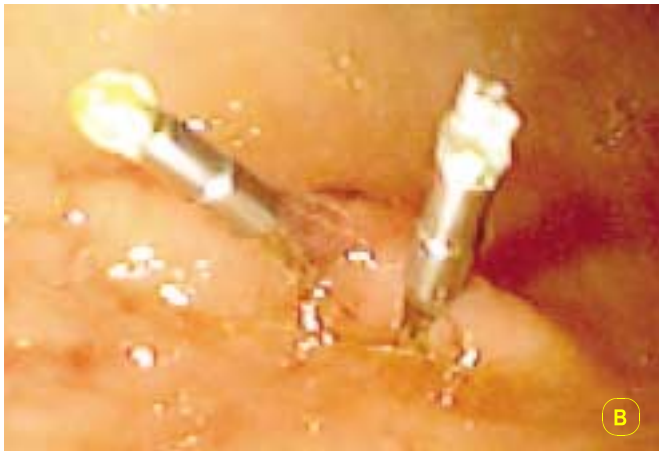
A 74 year old diabetic hypertensive woman was brought to the Kaplan Hospital emergency room following two episodes of hematemesis. Initial hemoglobin was 5.5 mg/dl. After administration of four units of packed red blood cells, an emergency gastroscopy was performed. Although no definite source of bleeding was found at that time, the endoscopist believed that the bleeding came from the gastric fundus, and random injections with epinephrine into that area were performed. On repeat endoscopy the following day, a "stream of blood" was clearly seen coming from a Dieulafoy lesion located on the lesser curvature of the distal body of the stomach. Although bleeding was slowed considerably by direct injections of epinephrine into the lesion, complete hemostasis was not obtained. Because the lesion itself was so edematous after the large amount of epinephrine injected, it was decided to mark the lesion with an Indian ink tattoo [Figure A], and to use hemoclips the following day. On the third endoscopy, the lesion was quickly identified because of the tattoo, and two hemoclips were applied [Figure B] using the Olympus HX 5/6 (Japan) rotatable fixing device.

Due to concurrent social and other medical problems, the patient was hospitalized for an additional 4 days, which allowed us to document success of the treatment. The patient was finally discharged in stable condition with no further episodes of gastrointestinal bleeding.

Comment

Approximately 100 years ago the French surgeon Dieulafoy described a bleeding gastric lesion, which today bears his name [3]. Dieulafoy's lesion is a disproportionately large caliber submucosal artery that is situated unusually close to the mucosa and breaks through the mucosa for reasons that are unknown [1,4]. Bleeding is massive





[A] Dieulafoy lesion tattooed with Indian ink. **[B]** Hemoclips in place on the Dieulafoy lesion.

but intermittent, making localization difficult, and frequently requires more than one endoscopic examination for confirmation. Dieulafoy's lesions occur most commonly, but not exclusively, in the cardia or proximal body of the stomach [1,2,5].

Until the 1980s surgery was the treatment of choice for Dieulafoy's lesion. However, this intervention carried a 25% mortality rate in those patients who rebled [4]. Today, as documented in a large recently published series from the Mayo Clinic, most patients are successfully treated with injection therapy followed by thermal ablation [1]. Nevertheless, owing to the acute nature of a Dieulafoy bleed, the superficial location of the "offending" artery, and the absence of significant fibrosis around the lesion itself, we believe that hemoclip placement can also be an effective and definitive therapy. The successful outcome in the case presented here supports hemoclip placement for treating a Dieulafoy lesion.

References

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