

Endoscopic band ligation in diverticular bleeding: a stepwise approach for successful treatment

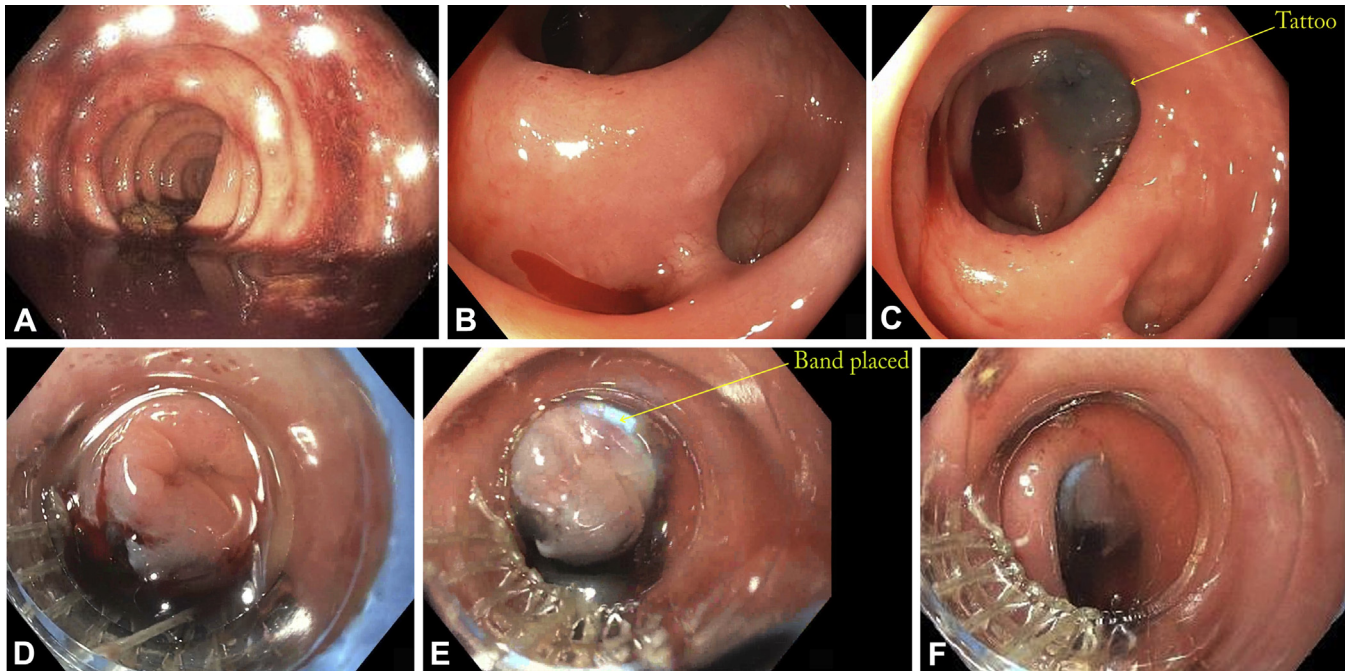


Figure 1. **A,** Fresh blood throughout the colon. **B,** Blood coming from a diverticulum in the sigmoid colon. **C,** A tattoo placed in the affected area. **D,** Bleeding diverticulum inverted with suction cap. **E,** Diverticulum with a band placed. **F,** Colonoscope withdrawal after endoscopic band ligation of bleeding diverticulum.

A 90-year-old man presented to the emergency department with acute painless hematochezia. A previous colonoscopy 2 years earlier confirmed severe diverticulosis in the sigmoid colon with active bleeding from a diverticulum, which was treated with thermal therapy and endoscopic clipping. Digital rectal examination demonstrated gross bright red blood with no evidence of hemorrhoids. Vital signs were negative for hypotension or orthostasis. Laboratory findings included normal hemoglobin and hematocrit: 15.6 g/dL and 44.7%, respectively. Platelets, international normalized ratio, prothrombin time, and partial thromboplastin time were unremarkable.

Given the prior history of diverticular-related bleeding, a rapid bowel preparation with 2 L of polyethylene glycol was administered over the course of 2 hours, followed by a same-day colonoscopy with a high-definition white-light adult colonoscope. Severe left-sided diverticulosis was once again confirmed. Intubation of the terminal ileum demonstrated no recent or old blood, excluding a small-bowel source. Upon careful withdrawal of the colonoscope, we

detected active bleeding from a diverticulum 40 cm from the anal verge (Figs. 1A and B). In order to not lose the site of interest, an area in the vicinity of the bleeding was immediately tattooed (Fig. 1C). To allow better examination of the bleeding site, the colonoscope was exchanged for a standard gastroscope, and a second tattoo was placed immediately adjacent to the diverticulum. Given the inability to directly visualize the bleeding vessel, the decision was made to invert the diverticulum with suction (Fig. 1D) and subsequently band it with a variceal banding device attached to the end of the gastroscope (Fig. 1E) (Video 1, available online at www.VideoGIE.org). There was no evidence of bleeding at the end of the procedure (Fig. 1F).

The patient was discharged home the following day with no evidence of lower GI bleeding and has not had any further recurrences of hematochezia.

In summary, a rapid colon purge followed by same-day diagnostic colonoscopy are both diagnostic and therapeutic. Immediate localization of the bleeding diverticulum with a tattoo is important for endoscopic management

Written transcript of the video audio is available online at www.VideoGIE.org.

and also for subsequent surgical therapy, should that be required. Several options exist to manage diverticular bleeding, and the best option depends on the location, size, and visibility of the bleeding lesion.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

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