



IMAGE OF THE MONTH

Major duodenal diverticular bleeding

Hemorragia de divertículo duodenal



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Duodenal diverticula (DD) are present in 20% of adults.^{1,2} Bleeding is a rare event (0.14% of upper gastrointestinal bleeding) and there is no defined gold standard method of haemostasis.^{3,4}

A 64-year-old female patient presented with melena with hemodynamic instability. At physical examination, she was tachycardic and nasogastric intubation did not show blood. Laboratory workup revealed acute normocytic

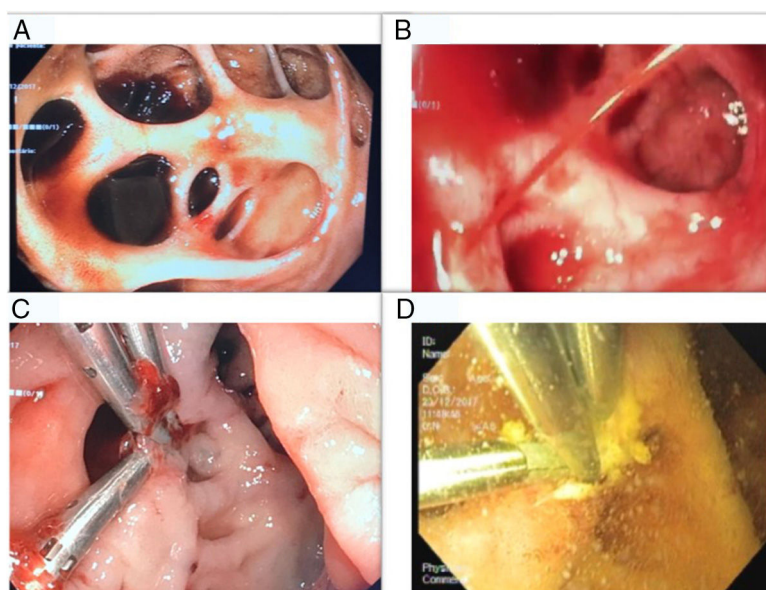


Figure 1 (A) UE revealing blood in the giant DD; (B) during observation, an arterial spurting of the DD was seen; (C) the bleeding was controlled with epinephrine and 3 hemoclips; (D) a second look endoscopy was performed without evidence of rebleeding.

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anemia of 8.6 g/dL. An upper endoscopy (UE) was performed and revealed a giant diverticulum of the second duodenal portion, without blood. She presented a new episode of hemodynamic instability and a contrast CT revealed blood in the DD. A second UE was performed using a conventional colonoscope and revealed blood in the DD (Fig. 1A). During observation, an arterial spurting of the DD was seen (Fig. 1B); it was controlled with epinephrine and 3 hemoclips (Fig. 1C). A second look endoscopy was performed, without evidence of rebleeding (Fig. 1D). The patient was discharged 5 days later.

Most common endoscopic approaches include injection, thermal and mechanic methods alone or combined.⁴ Although there are no available comparative studies, theoretically, clipping seems to be better than injection methods.¹ It was suggested that air removal before hemoclip may reduce perforation.⁵

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Conflicts of interest

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References

1. Onozato Y, Kakizaki S, Ishihara H, Iizuka H, Sohara N, Okamura S, et al. Endoscopic management of duodenal diverticular bleeding. *Gastrointest Endosc.* 2007;66:1042–9.
2. Khandelwal M, Akerman PA, Jones WF, Haber GB. Endoscopic therapy of a bleeding duodenal diverticulum. *Am J Gastroenterol.* 1995;90:1328–9.
3. Valdivielso Cortazar E, Madarnás Alonso L, Ortíz Marín S, Couto Worner I, Alonso Aguirre P. Duodenal diverticular bleeding: an endoscopic challenge. *Rev Esp Enferm Dig.* 2017;109:468–9.
4. Chen YY, Yen HH, Soon MS. Impact of endoscopy in the management of duodenal diverticular bleeding: experience of a single medical center and a review of recent literature. *Gastrointest Endosc.* 2007;66:831–5.
5. Lee SY, Hong SP, Hwang SK, Park PW, Rim KS. Duodenal perforation after endoscopic hemoclip application for bleeding from Dieulafoy's lesion in a duodenal diverticulum. *Gastrointest Endosc.* 2005;62:781–2.