

Tulip-bundle technique as rescue hemostatic therapy in a deep Mallory–Weiss tear

Competing interests: None

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An 80-year-old woman who was anti-coagulated with rivaroxaban for a previous deep venous thrombosis of the left lower limb presented with a 12-hour history of hematemesis. Her physical examination was unremarkable, and she had a blood pressure of 153/78 mmHg and heart rate of 75 beats/minute. Laboratory test results showed a hemoglobin level of 13.1 g/dL. Upper gastrointestinal endoscopy revealed a deep Mallory–Weiss tear with a visible vessel and active pulsatile bleeding located in a hiatus hernia (Fig. 1 a).

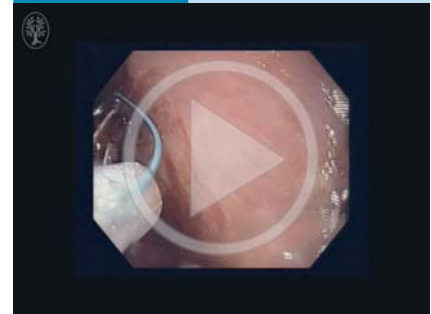
Because she was anticoagulated with rivaroxaban, mechanical hemostasis with clips (Resolution Clip; Boston Scientific) was selected as the treatment (Fig. 1 b) but despite the application of six hemostatic clips, bleeding persisted (Fig. 1 c). Subsequently, a tulip-bundle technique was planned (Video 1). A detachable snare (MAJ-254; Olympus, Tokyo, Japan) was placed over the clips (Fig. 1 d), which resulted in immediate hemostasis

(Fig. 1 e). Adjunctive management with nil per os, a proton pump inhibitor as a continuous infusion, metoclopramide, and prophylactic enoxaparin instead of rivaroxaban was instituted. The patient remained asymptomatic and was discharged 3 days later.

Mallory–Weiss syndrome accounts for 6%–14% of all cases of upper gastrointestinal bleeding, mainly occurring at the gastroesophageal junction or gastric cardia [1].

The tulip-bundle technique consists of the placement and tightening of a detachable snare around clips [2]. This technique has a range of applications, including hemostasis and closure of perforations and fistulae [2,3]. Moreover, this technique may represent an effective rescue treatment in bleeding that is refractory to initial hemostasis in patients with comorbidities that limit hemostatic options, as highlighted in this report.

Video 1



Endoscopic views showing the tulip-bundle technique as rescue treatment for a Mallory–Weiss tear with persistent bleeding despite proper application of several hemostatic clips. The placement of an endoloop around the clips results in the achievement of definitive hemostasis.

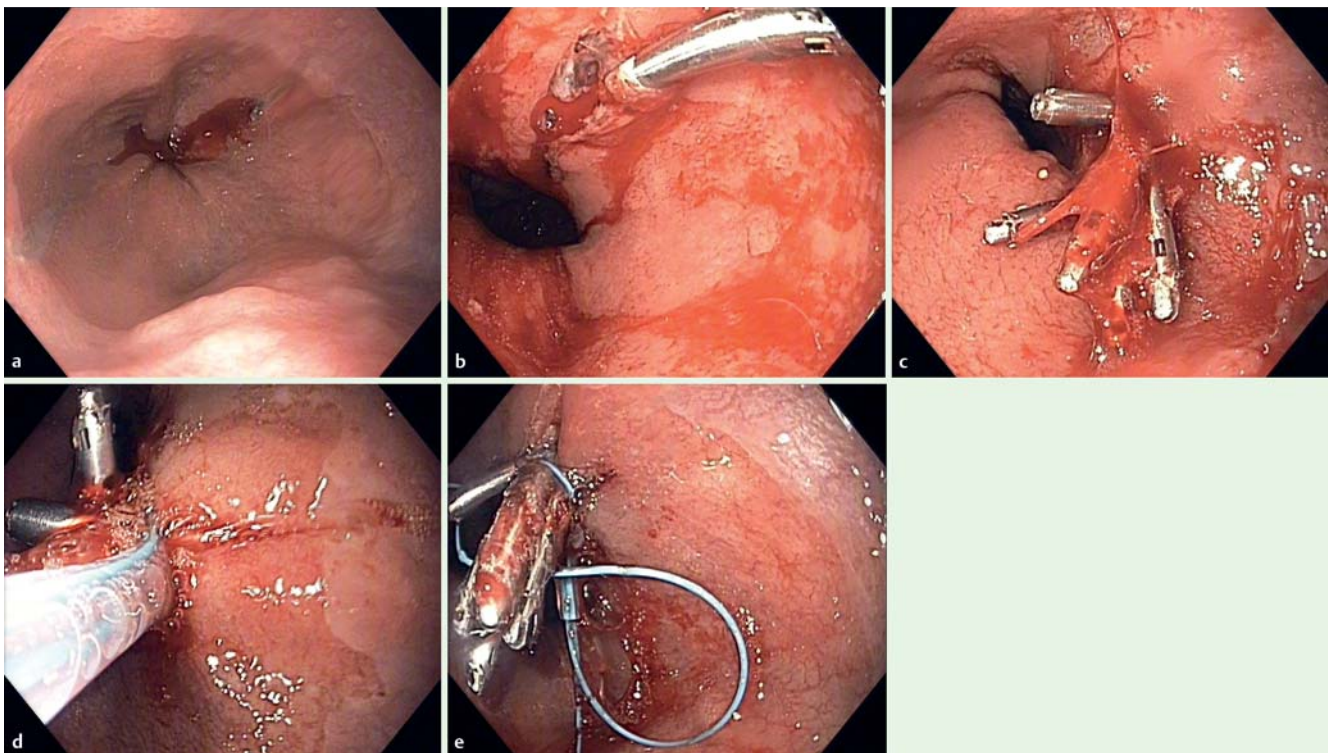


Fig. 1 Endoscopic views showing: **a** a Mallory–Weiss tear with active bleeding located in a hiatus hernia; **b** placement of a hemostatic clip; **c** persistent bleeding after the placement of six hemostatic clips; **d** a detachable snare tightened around the hemostatic clips; **e** cessation of the bleeding after completion of the tulip-bundle technique.

References

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