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

An 80-year-old woman who was anticoagulated 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. 1a).

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

Endoscopic views showing: 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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