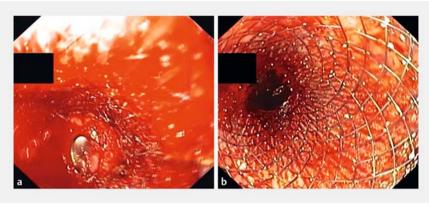
## Dealing with a misdeployed esophageal stent placed for variceal bleeding



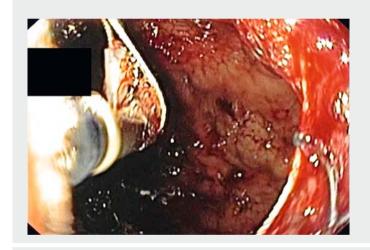
► Fig. 1 Endoscopic view showing the ligation-induced ulcer.



▶ Fig. 3 Endoscopic views showing: a major bleeding after initial stent deployment; b the final appearance after distal repositioning of the stent.



► Fig. 2 Photographs of the endoscopic procedure showing: a balloon inflation in the delivery system of the stent; b the delivery system being pulled back.



**▶ Video 1** Repositioning of a misdeployed esophageal stent placed for variceal bleeding.

A 54-year-old man with hepatitis C and alcohol-related Child-Pugh C cirrhosis had refractory ascites. He underwent band ligation of large esophageal varices because of his intolerance of beta blockers. Four bleeding episodes from ligation-induced ulcers occurred and an SX-Ella Danis fully covered self-expanding metal stent (SEMS) was placed during the last of these episodes (▶ Fig. 1 and ▶ Fig. 2). On endoscopic evaluation, the distal end of the stent was proximal to the gastroesophageal junction and there was major bleeding occurring in the dis-

tal, non-covered esophagus ( Fig. 3 a) but, after sclerosant injection, the flow of blood diminished. The retrieval stent loop was grasped, which allowed slight constriction and distal movement of the stent, which resulted in adequate coverage of the distal esophagus and control of the bleeding ( Fig. 3 b; Video 1). The stent was later removed after a transjugular intrahepatic portosystemic shunt (TIPS) had been placed.

Refractory esophageal variceal bleeding can be addressed by balloon tamponade,

insertion of a SEMS, and/or a rescue TIPS. SEMSs are considered efficacious in this setting, usually allowing more time in place with fewer adverse events when compared with balloon tamponade [1–3].

We re-evaluated this adverse event and found two possible explanations. One was related to the fact that the dedicated balloon was inflated with 100 mL of air, according to the manufacturer instructions provided. After further investigation, we encountered an alternative

option of filling it with 180 ml. We believe that, if the balloon had been inflated with this volume, the stent would perhaps have been deployed in the correct location as it would not have been possible to pull it upwards in the esophagus prior to its delivery. Another possible reason for this event could have been early pulling of the delivery system before complete emptying of the balloon, which also could have been responsible for pulling the stent proximally.

We report a rare life-threatening adverse event and demonstrate that it is possible to reposition a misdeployed stent successfully in the acute setting of variceal bleeding.

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#### Competing interests

The authors declare that they have no conflict of interest.

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#### **Bibliography**

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