Rescuing the impacted endoscopic suturing device during endoscopic sleeve gastroplasty

A 57-year-old woman underwent endoscopic sleeve gastroplasty using an endoscopic suturing device attached to a single-channel adult gastroscope. During the second bite, both the needle driver opening function and anchor exchange mechanism failed. This resulted in impaction of the device in the gastric wall and a “red-out” that obscured the visual field. An ultra-slim gastroscope was inserted transorally, enabling visualization of the impacted device (▶ Fig. 1, ▶ Video 1). A needle knife was passed through the channel port of the endoscopic suturing system and used to transect through the entrapped gastric tissue. Mini-forceps inserted through the ultra-slim gastroscope were used by a second endoscopist to manipulate the needle-knife catheter to extend the incision laterally and down to the level of the needle driver, thereby releasing the impacted device from the gastric wall (▶ Fig. 2).

Ex-vivo examination revealed that the suture needle had become embedded between the anchor exchange catheter and the channel of the endoscopic suturing device (▶ Fig. 3). This caused a misalignment between the needle driver and the anchor exchange mechanism (▶ Fig. 3). This resulted in the “red-out” phenomenon, which obscured the visual field. An ultra-slim gastroscope was inserted transorally, enabling visualization of the impacted device (▶ Fig. 1, ▶ Video 1). A needle knife was passed through the channel port of the endoscopic suturing system and used to transect through the entrapped gastric tissue. Mini-forceps inserted through the ultra-slim gastroscope were used by a second endoscopist to manipulate the needle-knife catheter to extend the incision laterally and down to the level of the needle driver, thereby releasing the impacted device from the gastric wall (▶ Fig. 2).

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and anchor exchange. Although misalignment occurs in 8.4% of cases [2], it can be salvaged by retracting the anchor exchange a few centimeters before re-engaging the needle driver. In our case, the lodged suture needle created a fixed misalignment that could not be rectified. We show that a needle knife can be used safely to free an impacted device under direct endoscopic visualization, preventing the need for emergency surgical intervention.

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Competing interests

The authors declare that they have no conflict of interest.

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