A 72-year-old woman was treated with endotracheal intubation and mechanical ventilation for shock caused by herbicide poisoning. After extubation she presented with cough. Tracheoscopy and gastroscopy both revealed a perforation measuring about 1 cm (▶Fig. 1a,b). The tracheoesophageal fistula (TEF) was treated with a purse-string suture via a gastroscope (GIF-Q260J; Olympus, Tokyo, Japan) (▶Video 1). In brief, an endoloop (Leo Medical, Changzhou, China) was inserted by forceps and anchored onto the full thickness of the edge of the fistula, including both the esophageal wall and the tracheal wall, with a titanium clip (Micro-Tech, Nanjing, China) (▶Fig. 1c). After adjustment of the angle, three additional repositionable clips were used to secure the endoloop on different sides of the fistula. The removable hook was then inserted and connected with the ring on the tail of the endoloop, which was tightened to pull the edges of the fistula together. The hook was then removed and the TEF was closed (▶Fig. 1d). To further strengthen the closure of the fistula, an endoclip was added to clamp the still visible small hole (▶Fig. 1e). The patient was put on nasal feeding after operation and her cough took a turn for the better. One month later, gastroscopy showed that the endoclips and endoloop had fallen off and the fistula was reduced to 0.3 cm (▶Fig. 2a), which was clamped with three clips (▶Fig. 2b). Follow-up at 4 months. a Endoscopy showed a closed fistula. b Upper gastrointestinal radiography showed no extravasation of contrast medium.
fallen off and the fistula was reduced to
0.3 cm, which was clamped with three
clicks (▶ Fig. 2). Another 3 months later,
gastroscopy and upper gastrointestinal
radiography revealed the fistula to have
closed (▶ Fig. 3).

TEF is a severe complication of endotra-
cheal intubation [1]. Owing to the high
position of postintubation TEF, it is diffi-
cult to place a tracheal or esophageal
stent, and surgical correction is usually
the only solution [2]. In our case, we per-
formed a purse-string suture to reduce
the fistula, and then successively closed
the reduced fistula with titanium clips.
This endoscopic procedure may be an
alternative to surgery for postintubation
TEF.

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Competing interests

The authors declare that they have no con-

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References

[1] Chen W, Li J, Deng R et al. Case report: tra-
cheoesophageal fistula secondary to post-
intubation tracheomegaly in a tetanus pa-
[2] Puma F, Vannucci J, Santoprete S et al. Sur-
gery and perioperative management for
post-intubation tracheoesophageal fistula:
case series analysis. J Thorac Dis 2017; 9:
278–286

Bibliography

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Video 1 Purse-string suture combined with titanium clips using a single-channel gastro-
scope for the closure of postintubation tracheoesophageal fistula in a 72-year-old woman.