

Double sticker over knife to assess myotomy and mucosectomy length during Zenker's peroral endoscopic myotomy for Zenker's diverticulum

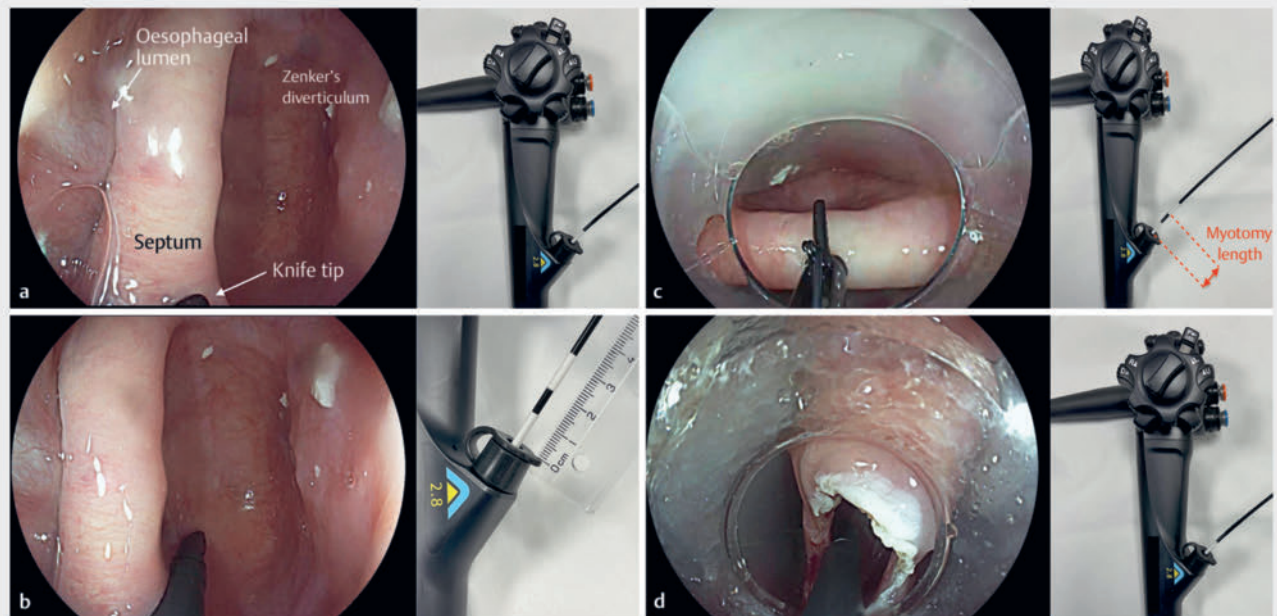
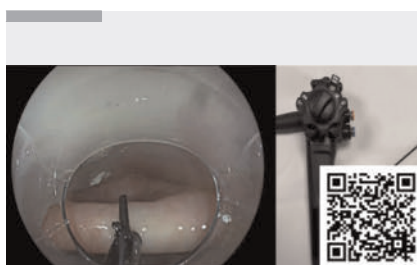


Fig. 1 Double sticker over knife technique. **a** The tip of the knife is placed in contact with the septum. A sticker is placed on the knife sheath, aligned with the opening of the working channel. **b** Without moving the scope, the knife is advanced through the working channel until the tip of the knife reaches the fundus of the Zenker's diverticulum. A second sticker is placed over the knife sheath. The distance between the two stickers is the desired myotomy length. **c, d** Mucosal incision and tunneling myotomy is performed until the second sticker reaches the opening of the working channel.



Video 1 Use of the "double sticker over knife" technique to assess myotomy and mucosectomy length during Zenker's diverticulum peroral endoscopic myotomy.

Flexible endoscopic therapies are becoming increasingly popular for the treatment of Zenker's diverticulum. In particular, Zenker's diverticulum peroral endoscopic myotomy (zPOEM) allows a selec-

tive and precise cut of the cricopharyngeal muscle under direct visualization, improving its effectiveness and safety [1]. A major concern regarding the length cut is the risk of perforation and/or difficulties in the incisional closure if the cut is extended beyond the fundus, or the risk of recurrence of dysphagia if the procedure is incomplete and/or there is an excess of mucosal flap remaining.

As previously described for myotomy length in achalasia [2], the "double sticker over knife" technique permits a precise measurement of Zenker's diverticulum depth and individualization of the exact length of myotomy and complementary cut of the mucosal flap required. We used the recently described "noninjection nontunnel technique" (Ni-zPOEM) using a scissor-type knife (Clutch-Cutter DP2618DT; Fujifilm Med-

ical, Tokyo, Japan), which does not require submucosal injection or tunneling [3].

First, the scope is advanced close to the diverticular septum, and a sticker is placed on the sheath of the knife externally, aligned with the opening of the working channel (► Fig. 1a). With the scope held in this position, the knife is advanced further through the working channel until the tip reaches the fundus of the Zenker's diverticulum. A second sticker is then placed on the knife sheath externally, again aligning it with the opening of the working channel (► Fig. 1b). These two reference points allow us to precisely measure the Zenker's diverticulum depth (► Fig. 1c). Ni-zPOEM continues with mucosal incision and selective myotomy. The scope is then placed again at the septum and the tip

of the knife is advanced through the tunnel until the tip reaches the muscle. Here, the second sticker should align with the working channel as it did initially (► **Fig. 1d**).


Our experience consists of 20 cases with a mean Zenker's diverticulum size of 26.7 (SD 12.7) mm. Technical success was achieved in all 20 cases (100%) with a mean procedure time of 32.4 (SD 12.8) minutes. Clinical success at 6 weeks' follow-up was 100% (► **Video 1**).

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Conflict of Interest

The authors declare that they have no conflict of interest.

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References

- [1] Steinway S, Zhang L, Amundson J et al. Long-term outcomes of Zenker's peroral endoscopic myotomy (Z-POEM) for treatment of Zenker's diverticulum. *Endosc Int Open* 2023; 11: E607–E612. doi:10.1055/a-2067-9105
- [2] Uchima H, Colán-Hernández J, Aguilar A et al. A simple method to determine the proper length of the gastric myotomy during peroral endoscopic myotomy for achalasia. *Endoscopy* 2022; 54: E85–E87
- [3] Gorrepati VS, Yang D, Draganov PV. Novel non-injection non-tunnel technique for peroral endoscopic myotomy of Zenker's diverticulum. *VideoGIE* 2023; 8: 181–182. doi:10.1016/j.vgie.2023.01.001

Bibliography

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