

Hybrid peroral endoscopic myotomy for large Zenker's diverticulum

OPEN
ACCESS

Zenker's diverticulum is considered a pulsation diverticulum developed in an area of weakness, known as the Killian's triangle. Flexible endoscopic treatment of Zenker's diverticulum was first introduced in 1982 and is now the first line of treatment [1,2]. It consists of complete section of the abnormal septum by diverticulotomy, using an over-the-scope plastic diverticuloscope that allows stabilization and better exposure. However, this technique does not allow for the accurate estimation of complete myotomy and has a higher risk of perforation, mainly related to the blind introduction of the diverticuloscope [3].

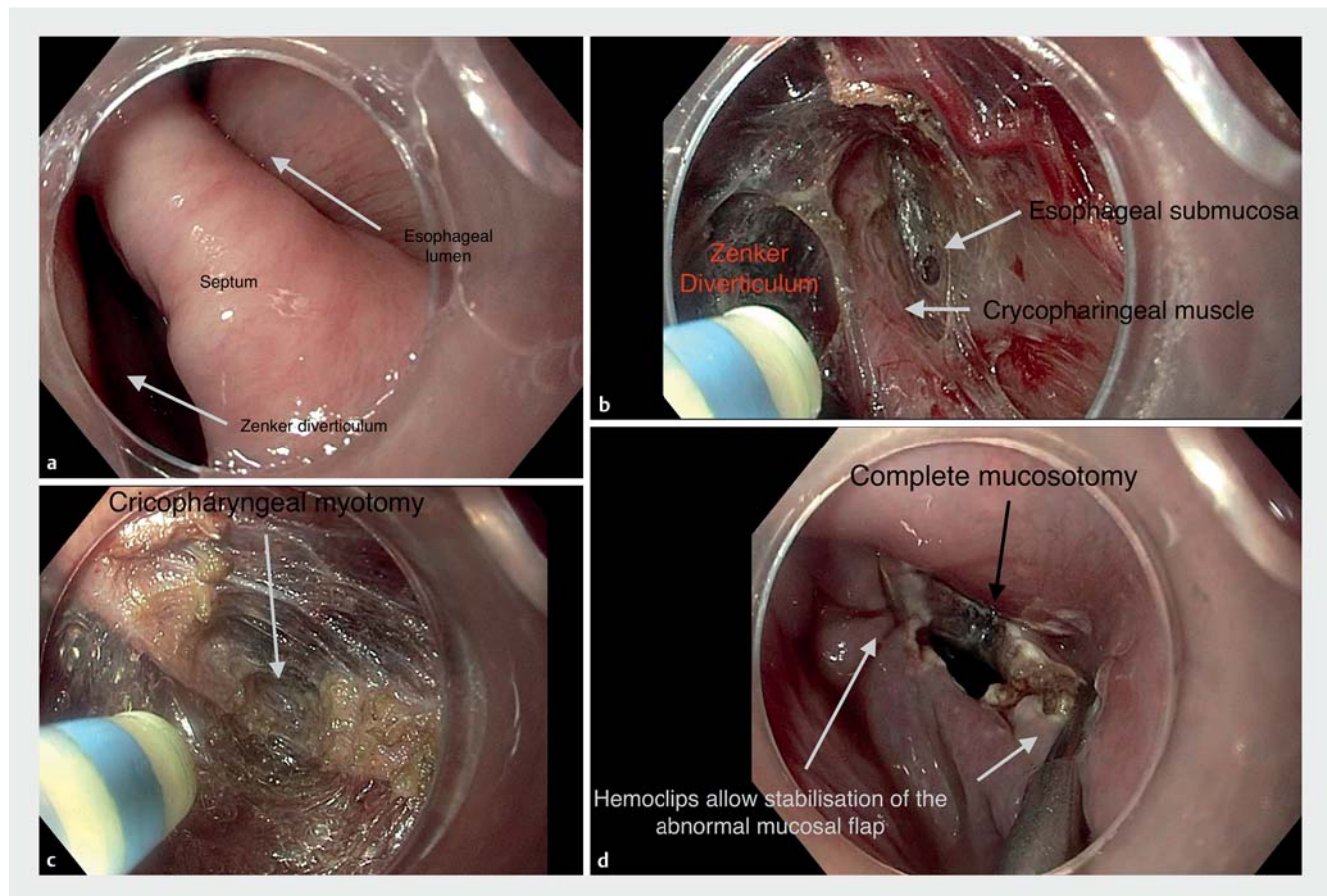
Peroral endoscopic myotomy for Zenker's diverticulum (zPOEM) was first described by Li et al. in 2016 and involves the same technique as the endoscopic myotomy used in the treatment of achalasia [4].

We report here the case of a 73-year-old patient with a large symptomatic Zenker's diverticulum (►Fig. 1 a). Owing to the size of the diverticulum, we decided to perform a modified hybrid zPOEM technique that comprises two steps: first the mucosal incision and submucosal tunneling followed by complete cricopharyngeal myotomy (►Fig. 1 b,c). Secondly, we stabilized the residual mucosal flap with two clips, and performed a

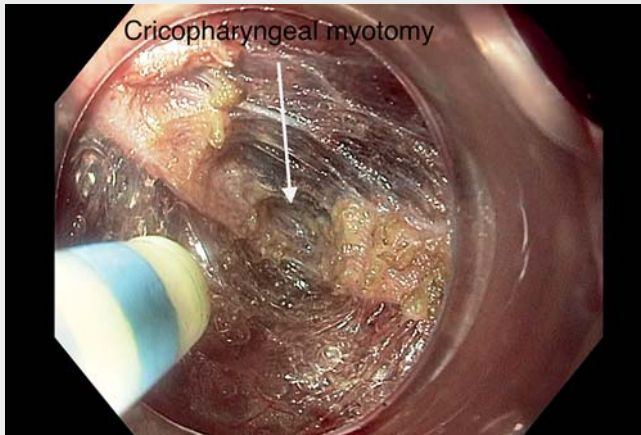
complete mucosotomy between the two clips (►Fig. 1 d, ►Video 1). This technique was recently published by Zhang et al. in a small case series [5].

To our knowledge, this is one of the first video reports of this hybrid zPOEM technique. It can be useful in cases of large Zenker's diverticula, without any additional risks; however, this may be difficult to prove as the pathology remains rare and current flexible endoscopic strategies are already very effective. The size of the diverticulum should be taken into consideration when choosing the best endoscopic strategy.

Endoscopy_UCTN_Code_TTT_1AO_2AD



► Fig. 1 Hybrid peroral endoscopic myotomy for Zenker's diverticulum. a The large Zenker's diverticulum. b Submucosal tunnelling. c Endoscopic myotomy. d Endoscopic mucosotomy and closure with clips.



Video 1 Hybrid peroral endoscopic myotomy for Zenker's diverticulum.

Bibliography

Endoscopy 2022; 54: E862–E863

DOI 10.1055/a-1838-3733

ISSN 0013-726X

published online 3.6.2022

© 2022. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany



Competing interests

The authors declare that they have no conflict of interest.

The authors

Alexandru Lupu¹, Pierre Lafeuille¹, Clara Yzet¹, Nicolas Benech¹, Jérémie Jacques², Jérôme Rivory¹, Mathieu Pioche¹

1 Hepato-Gastroenterology Department, Edouard Herriot Hospital, Hospices Civils de Lyon, Lyon, France

2 Service d'Hépatogastroentérologie, Centre Hospitalier Universitaire, Limoges, France

Corresponding author

Alexandru Lupu, MD

Hepato-Gastroenterology Department, Edouard Herriot Hospital, 5 Place d'Arsonval, Lyon 69003, France
alexandru.c.lupu@gmail.com

References

- [1] Calavas L, Brenet E, Rivory J et al. Zenker diverticulum treatment: retrospective comparison of flexible endoscopic window technique and surgical approaches. *Surg Endosc* 2021; 35: 3744–3752
- [2] Lambin T, Lafeuille P, Rivory J et al. When Z-POEM comes to the rescue of classical diverticulotomy and vice versa. *Endoscopy* 2022; 54: E193–E194
- [3] Ishaq S, Hassan C, Antonello A et al. Flexible endoscopic treatment for Zenker's diverticulum: a systematic review and meta-analysis. *Gastrointest Endosc* 2016; 83: 1076–1089
- [4] Li QL, Chen WF, Zhang XC et al. Submucosal tunneling endoscopic septum division: a novel technique for treating Zenker's diverticulum. *Gastroenterology* 2016; 151: 1071–1074
- [5] Zhang LY, Nieto J, Ngamruengphong S et al. Zenker's diverticulum: advancing beyond the tunnel. *VideoGIE* 2021; 6: 562–567

ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at <https://mc.manuscriptcentral.com/e-videos>