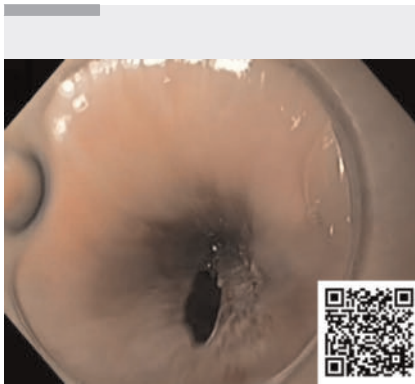
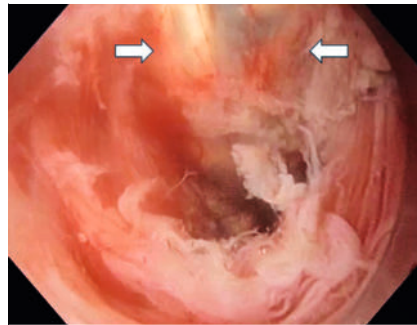


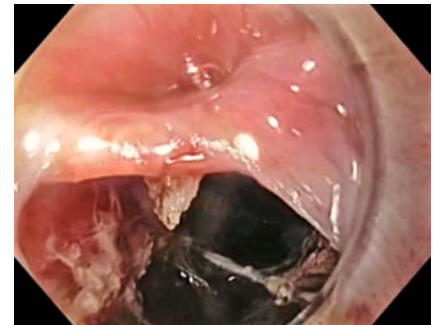
## Successful treatment of a full-thickness mucosal injury with a fully covered metal stent during peroral endoscopic myotomy



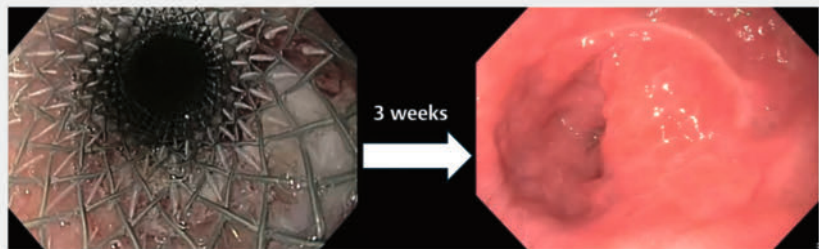
▶ **Video 1** Successful treatment of a full-thickness mucosal injury during peroral endoscopic myotomy with a fully covered metal stent.



▶ **Fig. 1** Unusual translucency (arrows) during double-scope transillumination.



▶ **Fig. 2** Full-thickness mucosal defect.



▶ **Fig. 3** Fully covered metal stent placed for the full-thickness defect (left). Complete re-epithelialization after removal of the stent three weeks post-procedure (right).

Peroral endoscopic myotomy (POEM) is a highly effective and safe first-line treatment for achalasia [1]. The rate of full-thickness mucosal injuries during POEM has been reported at 1.7%, occurring most commonly in the cardia [2]. Significant risk factors associated with full-thickness mucosal injuries include previous POEM (OR, 5.005) and submucosal fibrosis (OR, 12.074) [2]. Small mucosal injuries are usually easily treated using endoscopic clips, whereas larger injuries may require additional techniques such as suturing or stents [2]. Since achalasia lacks peristalsis, stent migration risk may be lower.

We present the case of a 23-year-old man who underwent POEM for type II achalasia. Although previous biopsies showed four eosinophils per high-power field, this finding was not conclusive for eosinophilic esophagitis.

During POEM, inadvertent intramuscular tunneling left muscle fibers attached to the mucosal plane, requiring further dissection and potentially compromising the muscularis mucosae (▶ **Video 1**). A spastic area was identified, and a thin pediatric gastroscope was used for double-scope transillumination [3], requiring

a forced push to advance it, and an unusual translucency suggestive of mucosal injury was seen (▶ **Fig. 1**). Intraluminal evaluation confirmed mild mucosal changes, prompting initiation of myotomy to prevent further damage.

After the myotomy was initiated, a second intraluminal inspection revealed a full-thickness mucosal injury (▶ **Fig. 2**). To complete the procedure safely, underwater myotomy was performed. Upon completion of the myotomy, attempts to close the defect with clips were unsuccessful due to mucosal denudation and direct communication with the mediastinum. Finally, after closure of the mucosal incision with clips, a fully covered metal stent was placed to seal the defect (▶ **Fig. 3**). A nasogastric tube was subsequently inserted under endoscopic guidance, and prophylactic antibiotics were




administered. A computed tomography scan ruled out any leaks, allowing the patient to begin oral intake and be discharged after one week without complications. The stent was removed three weeks post-procedure, and complete re-epithelialization was confirmed.

Endoscopy\_UCTN\_Code\_CPL\_1AH\_2AL

### Conflict of Interest

Hugo Uchima is a consultant for Lumendi, collaborates with ERBE Spain, Olympus Iberia, Izasa, and has received congress registrations from Casen-Recordati. All other authors have no conflict of interests to disclose.

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## References

- [1] Werner YB, Hakanson B, Martinek J et al. Endoscopic or surgical myotomy in patients with idiopathic achalasia. *N Engl J Med* 2019; 381: 2219–2229. doi:10.1056/NEJ-Moa1905380
- [2] Wang Y, Liu ZQ, Xu MD et al. Clinical and endoscopic predictors for intraprocedural mucosal injury during per-oral endoscopic myotomy. *Gastrointest Endosc* 2019; 89: 769–778
- [3] Lee JH, Kedia P, Stavropoulos SN et al. AGA Clinical Practice Update on Endoscopic Management of Perforations in Gastrointestinal Tract: Expert Review. *Clin Gastroenterol Hepatol* 2021; 19: 2252–2261. doi:10.1016/j.cgh.2021.06.045

## Bibliography

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