

## Peroral endoscopic myotomy (POEM) in jackhammer esophagus: a trick of the trade

A 69-year-old man presented for evaluation of progressive atypical chest pain. The patient noted 4 years of progressive daily chest pain, regurgitation of food, and intermittent dysphagia. After extensive evaluation, the patient underwent esophageal manometry which led to a diagnosis of jackhammer esophagus characterized by 100% hypercontractile waves. The patient had minimal symptomatic response to amitriptyline. He was referred for peroral endoscopic myotomy (POEM).

During the procedure, a 1.5-cm mucosal incision was made using a multipurpose knife (Erbe) for an entry point into the submucosal space. The submucosal space was dissected using intermittent injection and dissection with forced coagulation setting. Dissection of the submucosal tunnel was performed down to the level of the gastroesophageal junction and distal to it by 3 cm (► **Video 1**). Dissection of the circular muscle bundle began from 2 cm distal to the mucosal entry down to the gastroesophageal junction. In addition, full-thickness myotomy was performed in the mid and distal tun-

nel. Division of the sphincter muscles was continued toward the stomach until the endoscope passed through the narrow segment of the lower esophageal sphincter (► **Fig. 1**). The mucosal entry site was closed with hemostatic clips. At 1-month follow-up, the patient noted significant improvement in his pain and other symptoms.

The revised Chicago classification recently defined jackhammer esophagus as a hypercontractile esophagus, with at least one contraction with a distal contractile integral (DCI) of at least 8000 mmHg-s-cm [1]. Many treatments of jackhammer esophagus have been tried, including oral nitrates, balloon dilation, and surgical myotomy [2]. Recently POEM has been demonstrated as a safe and effective therapeutic modality for the treatment of spastic esophageal disorders [3], and particularly for jackhammer esophagus [4].

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### Competing interests

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► **Fig. 1** Peroral endoscopic myotomy (POEM) for jackhammer esophagus. As the tip of the endoscope reaches the stomach region the submucosal space becomes wider, confirming the completion of the myotomy.



► **Video 1** Peroral endoscopic myotomy (POEM) as a treatment for jackhammer esophagus.

## References

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