Peroral endoscopic myotomy (POEM) is an option for esophageal diverticula treatment based on septum myotomy. However, a significant number of patients continue to be symptomatic owing to the pouch persistence [1–4].

A 66-year-old man with significant weight loss, dysphagia, and chest pain was referred to our unit. Preoperative workup included: a) endoscopy of large diverticulum above the esophagogastric junction (EGJ); b) barium swallow with dilatation of distal esophagus with two diverticula, contrast hold-up, and tertiary contractions (video image); c) high-resolution impedance manometry indicating type 3 achalasia with a premature contractile segment starting 11 cm above the EGJ; and d) CT scan showing absence of extrinsic lesions.

A POEM was performed. Initial evaluation showed one 2-cm diameter diverticulum without a septum at 29 cm and the 12 o’clock position. Two large diverticula with defined septa were found at 32 cm and 3 o’clock, and 3 cm distally at 9 o’clock (▶ Fig. 1). A wide 16-cm long submucosal tunnel exposing 50% of the esophageal circumference was initiated at 26 cm and extended to 2 cm below the EGJ (▶ Fig. 2). An uninterrupted posterior myotomy was started 12 cm above the EGJ to ensure complete dissection of the spastic segment (▶ Fig. 3). Then, the myotomy was directed right to dissect the 3 o’clock diverticulum septum; afterwards, it was directed left to the 9 o’clock diverticulum septum and finally to the cardia and fundus, following the direction of the sling fibers. Both diverticulum pouches were everted towards the esophageal lumen and grasped with over-the-scope (OTS) clips (▶ Fig. 4).

The mucosotomy was closed with through-the-scope (TTS) clips. An early barium swallow demonstrated a restored esophageal anatomy with normal contrast flow (▶ Fig. 5). The patient was discharged without complications and remains asymptomatic on a regular diet.

We conclude that a multimodal one-session endoscopic procedure treating both the underlying motility disorder and the diverticula, with restoration of the lumen mechanically (OTS clips), will lead to better rates of therapeutic success.
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Competing interests

The authors declare that they have no conflict of interest.