A 71-year-old man was referred for a symptomatic Zenker’s diverticulum. The patient had undergone a stapled diverticulotomy 7 years ago. A barium esophagram revealed a 3-cm Zenker’s diverticulum with evidence of staples (▶ Fig. 1 a). The decision was made to perform a peroral endoscopic myotomy of Zenker’s diverticulum (Z-POEM).

A submucosal injection was performed with the intention of creating a bleb above the septum using a combination of normal saline and methylene blue. However, the bleb could not be created because of submucosal scarring and fibrosis (▶ Fig. 1 b, ▶ Video 1). A mucosal incision was made with a triangle-tip knife (KD 640 L; Olympus, Center Valley, Pennsylvania, USA) using EndoCut Q current, effect 3, and staples were seen through the incision. A clear submucosal layer could not be exposed because of extensive scarring and fibrosis, and thus tunneling was not possible. The decision was made to perform a standard septotomy (myotomy), which was started with a triangle-tip knife and then continued with a scissor-type endoscopic submucosal dissection (ESD) knife (SB knife, Olympus). A standard septotomy of 1.5 cm was performed using EndoCut Q current, effect 3, after which a clear submucosal layer was observed (▶ Fig. 1 c, d).

The procedure was continued using the Z-POEM technique to ensure complete exposure and dissection of the septum. Tunneling was performed along the esophageal and diverticular sides of the septum using a triangle-tip knife and spray coagulation mode, effect 2. Once the cricopharyngeal muscle septum was completely exposed, it was dissected for 2 cm down to the bottom of the diverticulum with a scissor-type ESD knife and EndoCut Q current (▶ Fig. 1 e). The mucosal incision was closed using through-the-scope clips (MicroTech, Ann Arbor, Michigan, USA) (▶ Fig. 1 f). The patient was admitted overnight. An esophagram performed the next day showed no leakage, and the patient was discharged on a soft diet. At follow-up 3 months post-procedure, the patient had complete resolution of the symptoms with no residual symptoms while taking a full diet.

The standard approach to Z-POEM starts with a mucosal incision, submucosal tunneling, septum division (septal myotomy), and mucosal closure [1]. On the other hand, in patients with prior such...
interventions, a hybrid approach may be necessary. This hybrid approach consists of five steps: (i) mucosal incision, (ii) standard septotomy until a clear submucosal layer is visualized, (iii) submucosal tunneling, (iv) septum division, and (v) mucosal closure (▶Table 1). In conclusion, the hybrid Z-POEM technique is safe and feasible in patients with symptomatic recurrent/residual Zenker’s diverticulum and submucosal fibrosis from prior interventions. This is the first case to report the use of the Z-POEM technique with the hybrid approach in the case of post-surgical fibrosis.

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Video 1 A symptomatic 71-year-old man with post-surgical fibrosis underwent peroral endoscopic myotomy for Zenker’s diverticulum (Z-POEM) using a hybrid approach. Conversion to a hybrid Z-POEM technique when the standard method is found to be not initially possible is a reasonable and effective approach.