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Management of multiple esophageal leaks with an ultra-large fully covered metallic stent after aborted peroral endoscopic myotomy

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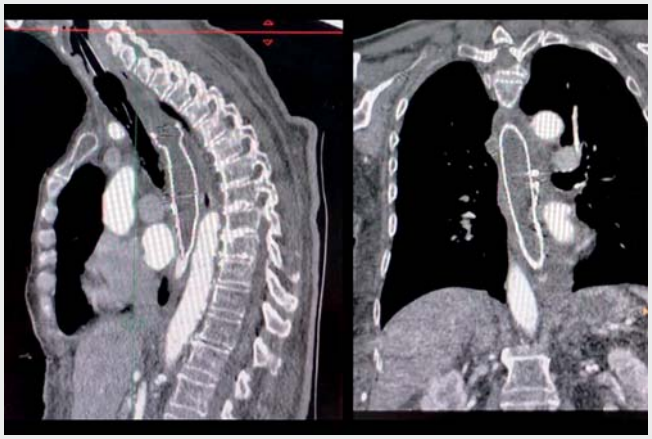
▶ **Fig. 1** Chest computed tomography with contrast, demonstrating periesophageal fluid and pleural effusion after peroral endoscopic myotomy.



Video 1 Use of an ultra-large stent for management of multiple esophageal leaks after peroral endoscopic myotomy.

Aborted peroral endoscopic myotomy (POEM) is rare, and submucosal fibrosis is the most common direct cause of technical failure [1, 2]. Age, disease duration, sigmoid esophagus, and prior interventions are the main risk factors for submucosal fibrosis [2, 3].

We present the case of an 85-year-old woman with type 2 achalasia previously treated with posterior approach POEM, in whom symptoms reappeared 13 months after the procedure, severely affecting her nutritional status and quality of life. A repeat POEM procedure with an anterior approach was intended.

During the procedure, a sigmoid esophagus with poor mucosal lifting and fibrotic adhesion between mucosal and muscle layers prevented the creation of the tunnel. After a second failed incision, the procedure was aborted. A type II mucosal injury occurred, which was closed promptly with endoscopic through-the-scope clips. However, frank perforation became evident soon after the procedure (▶ **Fig. 1**, ▶ **Video 1**). The patient developed sepsis and was transferred to the intensive care unit with mechanical ventilation.

A decision was taken to insert a ultra-large esophageal stent (Niti-S Mega Stent; TaeWoong Medical, Gyeonggi-do, South Korea) (▶ **Fig. 2**, ▶ **Fig. 3**, ▶ **Video 1**). Inotropic support was withdrawn after 24 hours and the patient was extubated. Enteral nutrition was introduced at Day 3, and antibiotics were given for 14 days without any complications regarding the stent.

▶ **Fig. 2** Fluoroscopic confirmation of stent placement.

▶ **Fig. 3** Esophagogram after stent placement; no leaks were observed.

Inadvertent mucosotomy and esophageal leak are the most common early complications of POEM. Endoscopic clips are the first management approach [1, 4]. Given the extensive fibrosis, multiple incisions, and suspicion of unnoticed injuries, insertion of an ultra-large stent was chosen.

The Mega stent is an ultra-large fully covered metallic stent, tailored for the management of post-bariatric surgery leaks. Its length and shape allow large leaks to be covered with decreased risk of migration that may prove useful in complications such as multiple leaks or extensive mucosal injury, as in the current case [5].

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Competing interests

The authors declare that they have no conflict of interest.

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