Multimodal endoscopic treatment of primary esophago-pleural fistula

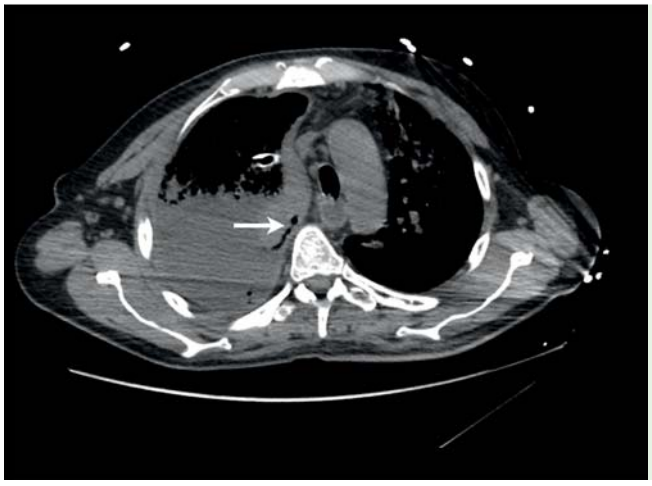

Fig. 1 Computed tomography scan image of massive right pleural corpuscolated effusion. A small esophago-pleural fistula could be identified (arrow).

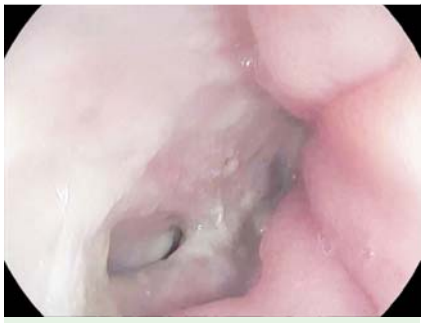

Fig. 2 Endoscopic view of large ulceration of the esophageal wall, with an orifice, about 8 mm in size, in its distal part.

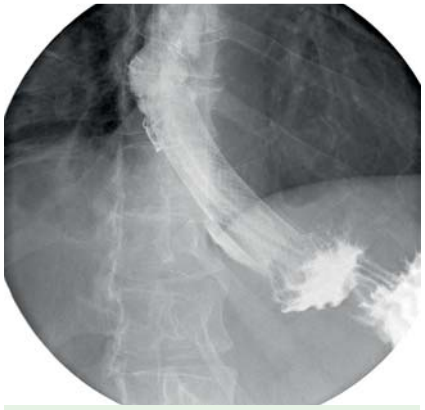

Fig. 3 A radiographic image confirmed that both the over-the-scope clip and the partially covered (colonic) self-expandable metal stent were in place.

A 48-year-old man was admitted to our hospital following the onset of cough, fever, and shortness of breath. Clinical history included psychotic syndrome and recurrent erosive esophagitis.

In the emergency room, a chest radiograph showed right pleural effusion. However, despite full conservative management, his condition worsened rapidly. A computed tomography scan revealed communication between the distal esophageal lumen and the right pleural space (**Fig. 1**). Subsequent upper endoscopy showed extensive ulceration of the esophageal wall, with a small orifice at its distal part (**Fig. 2**).

An over-the-scope clip (OTSC, 12 mm, traumatic type; Ovesco Inc., Tübingen, Germany) was deployed over the orifice (**Video 1**). To ensure complete occlusion of the defect, a colonic partially covered metal stent (Niti-S, 22 mm × 10 cm; Taewoong Medical, Inc., Gyeonggi-do, South Korea) was positioned, protecting the orifice against gastroesophageal reflux (**Fig. 3**).

The patient improved during the subsequent 30 days, and 2 months later, the metal stent was removed using a "stent-in stent" technique. Subsequent upper endoscopy showed complete healing of the esophageal wall even though the OTSC was no longer in place.

Primary benign esophago-pleural fistula is a rare but challenging condition, burdened by a high mortality and often requiring surgical treatment [1]. Self-expandable metal stents are well known therapeutic techniques used in the management of leaks and fistulas involving the esophageal wall or anastomosis [2]. Furthermore, the OTSC represents a new endoscopic approach for the closure of upper gastrointestinal leaks and fistulas [3]. However, as in the case described above, a tailored and multimodal approach (stent and OTSC) could be safer and more effective than a single modality, avoiding the need for surgery [4,5].

Endoscopy_UCTN_Code_TTT_1AO_2AC

Competing interests: None

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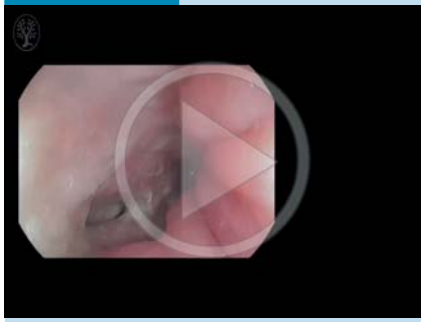
Video 1



Computed tomography scan and endoscopic view identified an esophago-pleural fistula. Combined treatment with an over-the-scope clip (Ovesco Inc., Tübingen, Germany) and stent placement was performed. Two months later, an upper tract radiograph and an upper endoscopy revealed complete healing of the fistula.

References

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DOI http://dx.doi.org/10.1055/s-0042-115940
Endoscopy 2016; 48: E298–E299

ISSN 0013-726X

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