Multimodal endoscopic treatment of primary esophago-pleural fistula

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 x 10 cm; Tae-woong 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 the “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].

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References

4 González-Haba M, Ferguson MK, Gelrud A. Spontaneous esophageal perforation (Boerhaave syndrome) successfully treated with an over-the-scope clip and fully covered metal stent. Gastrointest Endosc 2016; 83: 650–656

Bibliography

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