

Successful treatment of Boerhaave syndrome with an over-the-scope clip



Fig. 1 Patient presenting with Boerhaave syndrome. Computed tomography shows a pneumomediastinum (arrow).



Fig. 2 In the retroflexed view, a 7-mm large defect is visualized on the lesser gastric curve just under the Z line (arrow).



Fig. 3 An injection of water-soluble contrast during gastroscopy confirms that the leak communicates with the mediastinum (arrow).

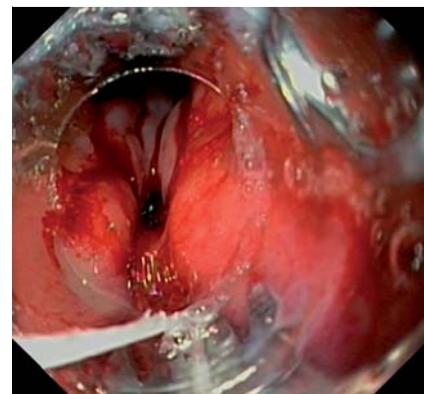


Fig. 4 Endoscopic view before release of the 12-mm over-the-scope clip, sharp teeth type, in front of the perforation. After the silicone cap with the loaded clip was placed at the tip of the gastroscope, the edges of the hole were taken up sequentially within the twin graspers and pulled to enclose them in the cap before the clip was released.

The standard of care for patients with Boerhaave syndrome, which has an estimated mortality rate of 20% to 40%, is a multidisciplinary approach based on conservative, endoscopic, or surgical treatment [1]. No consensus exists regarding the best strategy, and endoscopic stenting is a good alternative to surgery in selected cases [2,3]. The use of over-the-scope clips (OTSCs) to manage gastrointestinal leaks and iatrogenic perforations has been reported, with good results [4]. Here, we report the successful endoscopic closure of a spontaneous esophageal rupture with an OTSC device.

A 50-year-old man without a previous medical history presented with sudden epigastric pain radiating to the back following vomiting. The blood level of C-reactive protein was elevated (15 mg/dL). Computed tomography showed frank pneumomediastinum (► Fig. 1) and minimal pneumoperitoneum, suggesting Boerhaave syndrome. Antibiotics and proton pump inhibitors were started in the emergency department, and the patient was kept fasting. Because he was not septic, he underwent esophagogastroduodenoscopy (EGD) under general anesthesia the next

day. In the retroflexed view, a 7-mm large perforation was visualized extending from the Z line downward into the lesser gastric curve (► Fig. 2). An intraluminal injection of contrast identified the leak to the mediastinum (► Fig. 3). We used an OTSC rather than stent placement (► Fig. 4), which is our usual policy [3], because of the intragastric extension, size, and early diagnosis of the perforation. After placement, contrast injection confirmed sealing of the defect (► Fig. 5).

An oral contrast study 48 hours later demonstrated the absence of a residual leak. The patient was discharged 4 days later with oral antibiotics. At 6 weeks, he was asymptomatic, and follow-up EGD revealed good healing of the mucosa at the defect site and spontaneous clip migration (► Fig. 6). Biopsy of the esophagus and cardia disclosed normal tissue.

As recently reported [5], our case suggests a role for the OTSC device in the early endoscopic treatment of certain cases of Boerhaave syndrome.

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Competing interests: None



Fig. 5 Leak closure is confirmed by injecting water-soluble contrast after placement of the over-the-scope macroclip.



Fig. 6 Control esophagogastroduodenoscopy at 6 weeks discloses perfect healing of the mucosa and migration of the clip.

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