Total occlusion of the esophagus following placement of an over-the-scope clip: an unusual complication, and how to solve it

The over-the-scope clip (OTSC; Ovesco Endoscopy AG, Tübingen, Germany) has recently proven to be of great benefit for the closure of gastrointestinal defects, especially fistula following bariatric surgery [1]. Until recently, there were no good methods of removing the OTSC after unintended placement, but a newly developed dedicated cutter has proven to be efficient [2].

A 42-year-old man who underwent sleeve gastrectomy developed a 13-mm chronic fistula at the angle of His, and an abscess into the left mediastinum. The fistula was initially unsuccessfully treated by placement of a fully covered stent. Closure with an OTSC-gc was then attempted after de-epithelialization of the edges of the fistula with argon plasma coagulation (APC2; Erbe Elektromedizin, Tübingen, Germany). After the edges of the fistula had been anchored with the Ovesco Twin grasper and pulled, suction was applied before the release of the clip. The result was total closure of the esophageal lumen, as a result of too much mucosal tissue being sucked into the cap. The total occlusion was confirmed by contrast examination (Fig. 1). Attempts to cut the clip with APC at the maximum setting were unsuccessful and resulted in severe thermal damage to the surrounding tissue (Video 1).

The patient fasted for 24 hours while a newly developed and commercialized DC ClipCutter (Ovesco Endoscopy AG) was acquired. By using this cutting device, it was possible to cut the OTSC into four sections (Fig. 2) and remove it (Fig. 3, Video 1). Following removal of the clip, the surrounding tissue was swollen and inflamed, rendering the area temporarily inaccessible for further evaluation and intervention. A covered stent was placed to bypass the fistula for a few weeks, prior to a new attempt to close the fistula.

To our knowledge, this is the first description of an iatrogenic total closure of the esophagus with an OTSC. Such emergencies require a dedicated cutting device. Another lesson learned was to avoid suction when using the OTSC in the esophagus.

Competing interests: None

Khanh Do-Cong Pham1,2, Georg G. Dimcevski1,2
1 Department of Medicine, Haukeland University Hospital, Bergen, Bergen, Norway
2 Department of Clinical Medicine, K1, University of Bergen, Bergen, Norway

References

Corresponding author
Khanh Do-Cong Pham, MD
Section of Gastroenterology
Department of Medicine
Haukeland University Hospital
Jonas Lies vei 65
5051 Bergen
Norway
Fax: +47-55955000
phamkdc@gmail.com