Esophageal perforation after epicardial ablation: an endoscopic approach

Fig. 1 **a** A subxiphoid puncture with a Tuohy needle is used to access the pericardial space for epicardial mapping and ablation. **b** Accessing the pericardial space with a guidewire.

Fig. 2 **a** Epicardial electrophysiological mapping. **b** Epicardial ablation.

Endocardial ablation has long been used to treat cardiac arrhythmias. However, the indications for epicardial intervention via the pericardial space have continuously increased since the technique was first described [1–3]. A subxiphoid puncture is used to access the pericardial space (● Fig. 1 a, ● Fig. 1 b), allowing epicardial mapping and ablation (● Fig. 2 a, ● Fig. 2 b). Various complications have been described [4–8], which range from those caused by the puncture access (damage to the liver, colon, diaphragm, right ventricle, lungs) to those secondary to the ablation itself (damage to the coronary vessels, phrenic nerve, cardiac wall).

We present the case of a 63-year-old man admitted who had syncope, caused by transitory ventricular tachycardia secondary to Chagas disease with advanced chronic heart failure. The patient underwent epicardial ablation, which was complicated by the formation of an esophageal–mediastinal fistula, diagnosed with computed tomography and upper gastrointestinal endoscopy 15 days after the procedure.

Following a multidisciplinary consultation during which the patient's overall clinical status was considered, a conservative treatment combining thoracic drainage and the endoscopic placement of an over-the-scope clip was attempted (● Video 1). The procedure was conducted without technical difficulty, and the patient left the intensive care unit on the next day. After 10 days, esophagography showed the clip still in place, with no detectable leakage of contrast medium. Liquid oral intake was initiated, and with progressive improvement in the patient's clinical status, he was discharged home 3 days later.

The patient returned on the 35th day after the endoscopic procedure for a follow-up examination. Endoscopy demonstrated that the metallic clip was no longer in place, but only a small pseudodiverticulum was visible, with no leakage of contrast medium detected on fluoroscopy.

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Competing interests: None

Video 1

Conservative treatment combining thoracic drainage and the endoscopic placement of an over-the-scope clip to manage esophageal – mediastinal fistula complicating epicardial ablation in a patient with Chagas disease.

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