

EP CASE REPORT

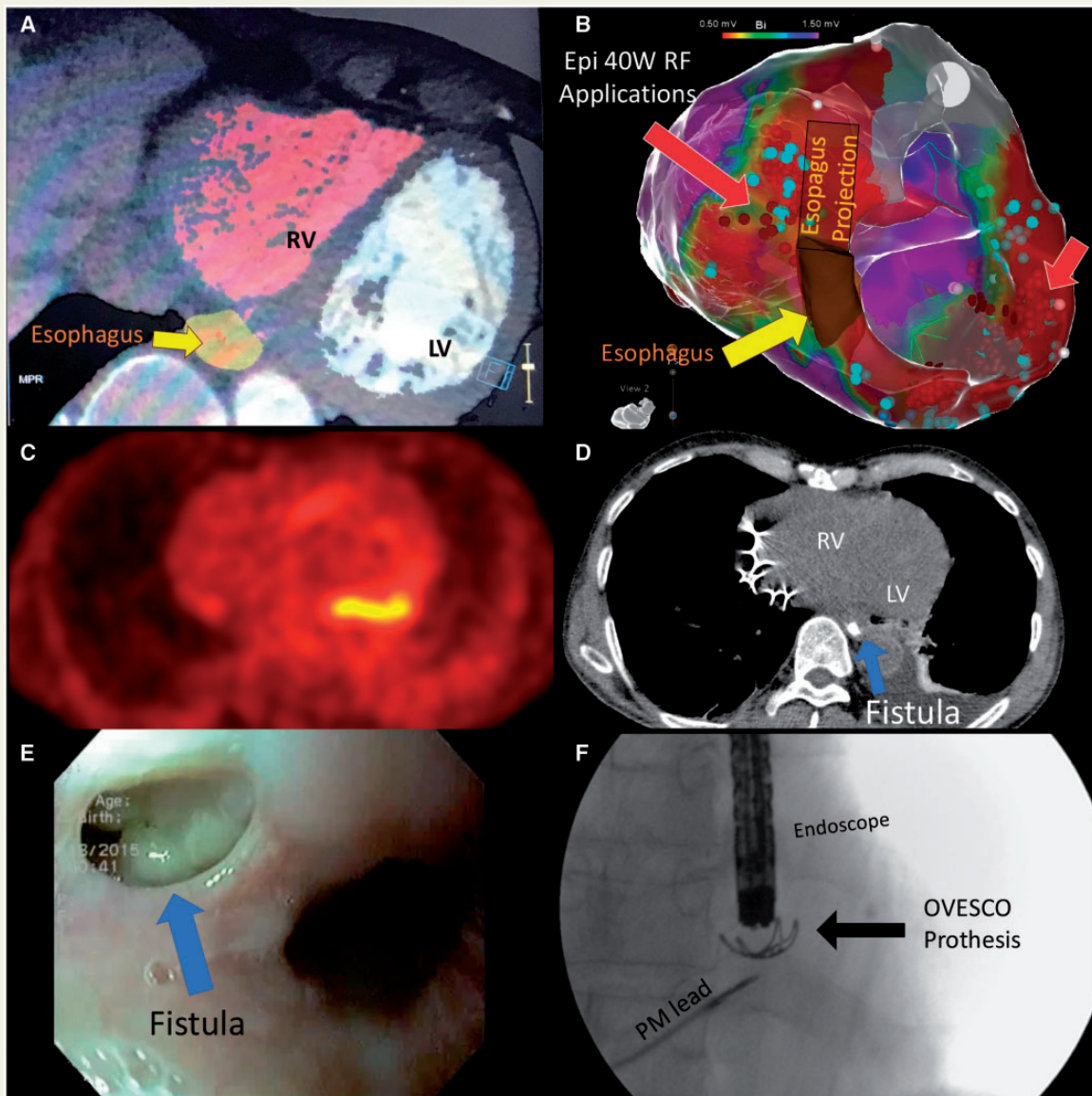
Oesophagopleural fistula following epicardial ventricular tachycardia catheter ablation

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A 63-year-old male patient with Chagas disease, who had a prior pacemaker implantation and syncope due to sustained ventricular tachycardia (VT), was referred for radiofrequency (RF) catheter ablation. The ejection fraction was 35%, and 5 years earlier, a cardiac magnetic resonance image showed a mesoepicardial, inferolatero-mediobasal, and transmural apical late-gadolinium enhancement. Ablation was performed using an irrigated-tip catheter with a contact sensor (Smart touch). During the ablation, four VT morphologies were induced, and the voltage map demonstrated epicardial right ventricle (RV) and epicardial inferolatero-basal scar on the left ventricle. Ablation (B) was



performed (40 W, 17 mL/min) on the epicardial surface of the free wall of the RV and the latero-basal surface of the left ventricle. After substrate modification, VT was not induced anymore. The implantable cardio-defibrillator (ICD) implantation was planned, but 1 week later, the patient presented fever and pleural effusion, the c-reactive protein levels increased and antibiotics were started. A thorax CT showed left pleural effusion; the fever continued, and a Positron Emission Tomography/Computed Tomography was performed, showing inflammation on the left mediastinum (C). The patient also presented dyspepsia, so an endoscopy was performed, showing an orifice 35 cm after dental arch on the lateral wall of the oesophagus (E). An oral iodinated-contrast thorax CT scan showed the contrast spilling on the pleural space, confirming the oesophago-pleural fistula (D). The patient was put on fasting with antibiotics, and both thoracic and nasogastric tubes were inserted. Because the patient was asymptomatic, spontaneous closure was expected. As the spontaneous closure did not occur, the orifice was closed (F) using an over-the-scope clip (OTSC System-Ovesco). The patient presented no pain after the device implantation. Liquid oral intake was initiated after a 10-day control endoscopy, and the patient was discharged 3 days later. Two weeks later, a control endoscopy showed that the metallic clip was no longer in place and that a small pseudodiverticulum was visible with no contrast spilling.¹ The ICD implantation was delayed for 6 months due to the infection risk. The patient had complete recovery and presented VT recurrence 30 months after the ablation. The patient underwent a second successful epicardial ablation during which no adhesions could be observed.

Epicardial ablation is useful in non-ischæmic cardiomyopathies in which epicardial substrate is predominant, such as those of Chagas disease patients. Most complications of epicardial ablation are related to punctures or peripheral structures,² and the oesophagus was not an issue until the occurrence of this case. Atrio-oesophageal fistula is a major issue in atrial fibrillation ablation procedures due to the close proximity of the oesophagus and the left atrial posterior wall. In this case, the 40 W basal left ventricle substrate homogenization and the proximity to the oesophagus (A and B) and the left pleural space was probably the reason for the oesophageal damage. Fortunately, as the RF applications were outside the heart, the cardiac chambers were not involved in the fistulous trajectory, and the patient did not present the embolic complications that can occur in atrio-oesophageal fistula or haematemesis, as seen in the other VT ablation fistula case.³ After the occurrence of this case, we started oesophageal temperature monitoring during epicardial VT ablation, but no oesophageal temperature increase was observed in those procedures.

Conflict of interest: none declared.

References

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