



Entrapment of a circular mapping catheter in a pulmonary vein during atrial fibrillation ablation

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A 63-year-old female suffering from recurrent symptomatic atrial fibrillation (AF) was referred for pulmonary vein (PV) isolation. Ablation strategies for the treatment of AF are still associated with potential severe complications, but these are rare [1]. Entrapment of the circular mapping catheter in the mitral subvalvular apparatus has been reported to be a rare but severe complication with potential fatal outcome [2]. Ablation catheter entrapment by a small side branch of the PV has been described as well [3]. In this case, we report the unique complication of the entrapment of the circular mapping catheter (Lasso®, Biosense-Webster, Diamond Bar, CA, USA) in the left inferior PV. Two 8.5-f-long sheaths (8.5 f SL1 Fast-Cath Guiding Introducer, St. Jude Medical, Minneapolis, MN, USA) were advanced in the left atrium. Using a non-fluoroscopic navigation system (CARTO 3, Biosense-Webster, Diamond Bar, CA, USA) a functional anatomical bipolar voltage map using the ablation catheter (Thermocool Smarttouch SF, Biosense-Webster, Diamond Bar, CA, USA) and after-

wards, wide antral isolation of both the left and right PV was performed. Afterwards, the 20-mm Lasso® catheter was placed under clockwise rotation in the left inferior PV to demonstrate bidirectional block. After confirmation, retraction by gentle traction and a clockwise rotation was not possible despite multiple attempts. When the sheath was advanced, the Lasso catheter could be inserted into the sheath as far as the tip. PV angiogram showed that the catheter was positioned in a small side branch. Finally, stronger maneuvers with rotation allowed its retrieval. Immediately after retrieval, the patient developed severe hemoptysis. Examination of the catheter showed an approximately 1.5-cm-long tissue strip, suggesting complete stripping of the side branch (Fig. 1). PV angiogram confirmed intrapulmonary hemorrhage. Anticoagulation was immediately reversed with protamine. With the patient hemodynamically stable, a contrast-enhanced CT-scan was performed immediately, confirming the intrapulmonary hemorrhage and the paravasation of the contrast medium in the left paracardial lower lobe. However, no active bleeding was observed in the CT-scan. To prevent aspiration and recurrence of bleeding, the patient remained intubated under deep consciousness sedation for 48 h. Anticoagulation was restarted 48 h with dabigatran bd 150 mg. Control CT-scan demonstrated no active bleeding and a decrease of the intrapulmonary hemorrhage. The patient could be discharged 5 days later without any complaints.

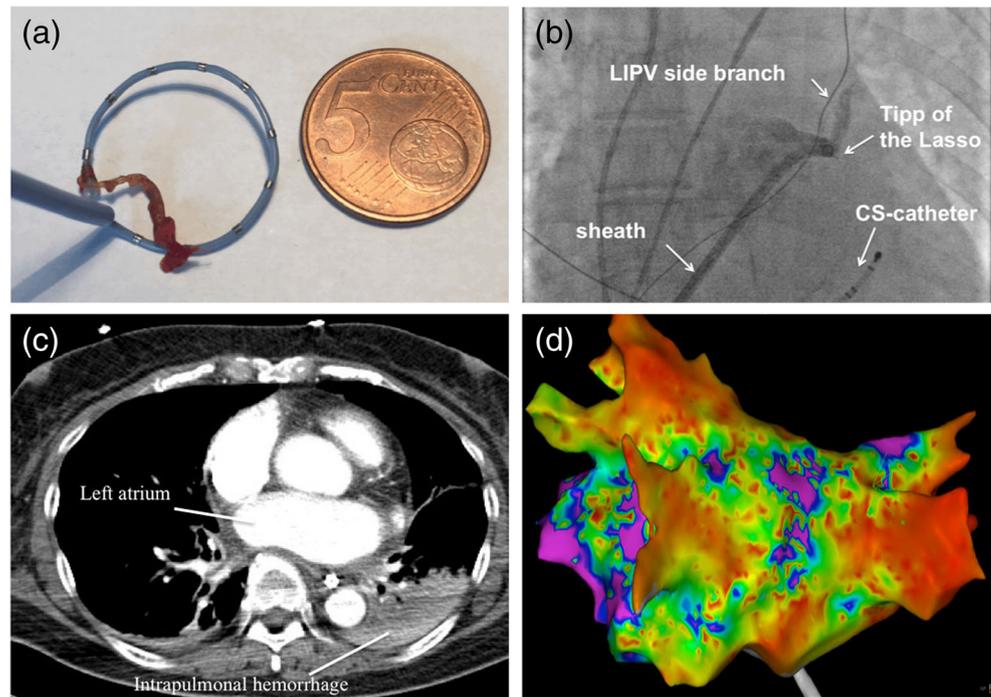
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Fig. 1 **a** Photo showing the Lasso-catheter with tissue of the LIPV. **b** Contrast agent given via the SL1-sheath, showing the Lasso-catheter in a small side branch of the LIPV. **c** CT-scan showing intrapulmonary hemorrhage and paravasation of the contrast medium. **d** Electroanatomical map of the left atrium from a posterior-anterior view



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