Percutaneous retrieval of an endothelialized AMPLATZER cardiac plug from the abdominal aorta 6 months after embolization

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A 56-year-old, asymptomatic patient with a history of coronary artery disease, previously treated percutaneously and permanent atrial fibrillation with the CHA2DS2-Vasc-score of 3, arrived at our hospital for a routine transoesophageal echocardiography (TEE) control, 6 months after the implantation of 24-mm-AMPLATZER-Cardiac-Plug (ACP). The left atrial appendage (LAA) had been initially implanted to reduce the risk of bleeding associated with dual antiplatelet therapy added to oral anticoagulation. The procedure was performed under TEE guidance, in the hybrid-operating room with a correct final position (Panel A) confirmed immediately post-operatively by the operator and echocardiographer at that time. During the 6-month-TEE control examination, the ACP device could not be seen either in the LAA or in any of the heart cavities (Panel B). We then reviewed the chest X-ray image performed on the second post-implantation day, on which the dislodged device could be clearly seen in the subdiaphragmatic abdominal aorta, at the level of the renal arteries take-off (Panel C). However, this was not perceived by radiologists at that time. The aortography performed subsequently showed the occluder fixed against the wall of the abdominal aorta (Panel D). We decided to attempt percutaneous retrieval of the device through the right femoral artery using a 14F-sheath and a Goose-neck-Snare-Kit with a Judkins-R4 diagnostic catheter. After multiple forceful pulling manoeuvres, we managed to snare (Panel E) and retrieve the device with a completely endothelialized disc (Panel F). The patient’s post-interventional course was uneventful.

This case shows the need for careful follow-up including the TEE control to avoid potentially life-threatening complications following successful LAA occlusion.

The percutaneous retrieval of the device was successful, obviating further surgical intervention. In accordance with the patient’s wish, implantation of a new device was not attempted. Supplementary material is available at European Heart Journal online.