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Thoracoscopic left atrial appendage clipping as novel treatment option for peri-device leakage

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A 69-year-old woman known with symptomatic antiarrhythmic drug refractory paroxysmal atrial fibrillation (AF), stroke (CHA₂DS₂-VASc score 5), and therapy-resistant epilepsy resulting in collapses with risk for head trauma (HAS-BLED score 3), underwent catheter ablation and transcatheter left atrial appendage (LAA) occlusion (WATCHMAN™ 24 mm, Boston Scientific, Natick, MA, USA). Computed tomography (CT) scan revealed significant peri-device leakage (4–5 mm). Due to the absolute contra-indication for oral anticoagulation therapy, the patient was referred for thoracoscopic LAA-clipping (Atriclip PRO 145, AtriCure Inc., Dayton, OH, USA). Additionally, a totally thoracoscopic MAZE procedure (TT-MAZE) was performed. Perioperative Transesophageal echocardiography (TEE) showed complete closure of the LAA, which was confirmed on CT-scan performed 2 months after surgery.

A 77-year-old male with a history of permanent AF (CHA₂DS₂-VASc score 4), prostate carcinoma, and gastro-intestinal bleedings (HAS-BLED score 3), underwent a WATCHMAN LAA occlusion (24 mm). Computed tomography scan revealed significant peri-device leakage (9 mm). The patient was referred for thoracoscopic LAA-clipping (Atriclip PRO 150). Additionally, a TT-MAZE was performed. Post-operative CT scan showed complete closure of the LAA as shown in Figure (the WATCHMAN (black arrow) and Atriclip (white arrow) are both *in situ* with no contrast in the LAA).

Thoracoscopic LAA-clipping seems to be a feasible treatment option for peri-device leakage after incomplete transcatheter LAA-closure.

The full-length version of this report can be viewed at: <http://www.escardio.org/Guidelines-&-Education/E-learning/Clinical-cases/Electrophysiology/EP-Case-Reports>.

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