

IMAGE FOCUS

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When therapy becomes the source of embolism

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A 74-year-old male presented with recurrent transient ischaemic attacks while on warfarin and clopidogrel therapy. The patient had a history of a patent foramen ovale that had been closed percutaneously 11 years ago using the STARFlex Septal Occluder (NMT Medical, Boston, MA). Magnetic resonance imaging of the brain revealed multiple small cortical infarcts, prompting further investigation.

A transoesophageal echocardiogram revealed an 8 × 10 mm left atrial (LA) mass located at the posterior wall in the vicinity of the device. A thorough evaluation exposed a device leg fracture (Panels *a* and *b*, marked with a red arrow), with the protruding leg impacting on the posterior LA wall during each LA contraction, causing erosion and thrombus formation (Panels *a*, *b*, and *c*, marked with a white arrow). Within a 6-month period, LA thrombus was identified in 1.1% of patients who received the STARFlex device, attributed to incomplete endothelialization, antithrombotic drug therapy regimens, hypercoagulable disorders, residual shunting, and technical failures. Nevertheless, a device leg fracture occurring more than a decade after implantation has not yet been reported.

The patient was scheduled for surgery via a minimally invasive thoracoscopic technique. The device was removed, and soft thrombus was identified and successfully extracted from the LA (Panel *d*). Subsequently, the resulting atrial septal defect was surgically closed. The post-operative course was uneventful.

This case highlights the importance of recognizing potential complications associated with long-term implantable devices and emphasizes the necessity for regular monitoring and vigilance.

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