


CARDIOVASCULAR FLASHLIGHT

Thrombus formation 10 years after placement of an atrial septal secundum defect closure device

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A 65-year-old female patient with a 24 mm atrial septal secundum defect underwent successful percutaneous closure of the defect 10 years earlier using a 38 mm StarFlex device; NMT Medical, Boston, MA, USA. The patient was undergoing follow-up annually with no abnormal findings at echocardiography or other complications.

At her recent echocardiography evaluation, two-dimensional (2D) study demonstrated a mass 2 × 2 cm (arrows) in the right atrium at the posterior portion of the device (Panel A).

The transoesophageal echocardiography and three-dimensional transthoracic echocardiography (3D) images of the mass are shown in Panels B and C, respectively. A cardiac magnetic resonance imaging followed the echocardiography evaluation (Panel D) and confirmed the diagnosis of the mass within the right atrium, which was consistent with a large thrombus attached to the posterior portion of the closure device. This is the first case reported in the literature of thrombus formation on a closure device 10 years after the intervention, probably due to incomplete endothelialization of the device. This case demonstrated the need for continuous follow-up of patients after device implantation.

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