

## IMAGE FOCUS

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## Multimodality imaging of an inadvertently placed defibrillator lead in the left ventricle

Lillian Aldaia\*, Steven Kobren, Ricardo Benenstein, and Muhamed Saric

New York University Langone Medical Center, New York, NY 10016, USA

\* Corresponding author. Tel: +1 917 224 2211, Email: laldaia@gmail.com

A 77-year-old woman with a history of internal cardiac defibrillator (ICD) placement 5 years earlier was referred for transoesophageal echocardiography (TOE) to evaluate mitral regurgitation. An electrocardiogram revealed ventricular pacing with unexpected right bundle branch morphology (Panel A). On chest X-ray, the lead terminated in the left ventricular (LV) apex (Panel B).

Two- and three-dimensional TOE revealed an ICD lead entering the right atrium via the superior vena cava, perforating the interatrial septum just superior to the fossa ovalis resulting in an iatrogenic atrial septal defect (see Supplementary data online, *Video S1*), coursing through the mitral valve orifice and terminating in the LV (Panels C–F; see Supplementary data online, *Video S2*). There was severe mitral regurgitation.

Malposition in the LV is a known complication of transvenous insertion of pacing leads, the incidence of which is unknown. Its most common complication is thrombo-embolism. Treatment includes anticoagulation and lead extraction with repositioning in the right ventricle.

Supplementary data are available at *European Heart Journal – Cardiovascular Imaging* online.

