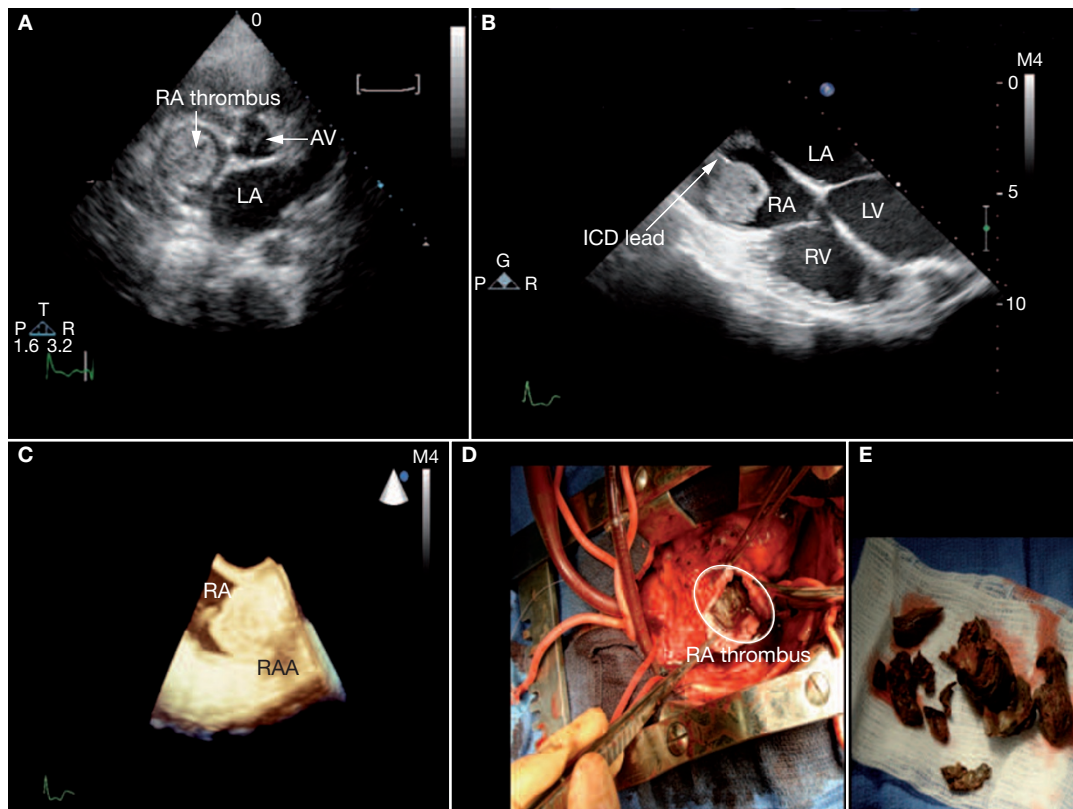


# Right atrial thrombus attached to the defibrillator lead

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A 35-year-old woman with a 1-year history of dilated ischemic cardiomyopathy presented with dyspnea, which had developed 2 days earlier. She had received an implantable cardioverter-defibrillator 6 months before presentation for the primary prevention of sudden cardiac death, and had since been treated at home with furosemide (60 mg twice daily), lisinopril (2.5 mg once daily) and continuous dobutamine infusion (5 µg/kg/min delivered via a peripherally inserted central catheter line). Physical examination at presentation demonstrated right basilar crackles and a summation gallop. The results of electrocardiography and cardiac biomarker tests were unremarkable. Chest radiography revealed a small, right pleural effusion. (A) Transthoracic echocardiography—performed in the parasternal short axis view at the aortic valve level—demonstrated an echogenic mass in the right atrium that was consistent with either a thrombus or myxoma. (B) Two-dimensional transesophageal echocardiography revealed a heterogeneous right atrial mass attached to the defibrillator lead. (C) Three-dimensional transesophageal echocardiography showed an ellipsoid 3 × 3 × 4 cm mass—consistent with a thrombus—that occupied most of the superior right atrium, and had a mobile 2.5 cm portion extending towards the right atrial appendage. (D, E and Supplementary video file) Surgical removal of the right atrial thrombus was performed via a median sternotomy and the defibrillator lead was extracted. Coagulation studies revealed that the patient was heterozygous for the Arg506Gln mutation at exon 10 of the gene encoding coagulation factor V (the Factor V Leiden mutation), but was otherwise normal. She had a full and uneventful recovery. Abbreviations: AV, aortic valve; ICD, implantable cardioverter-defibrillator; LA, left atrium; LV, left ventricle; RA, right atrium; RAA, right atrial appendage; RV, right ventricle.

Supplementary information in the form of a video is available on the *Nature Clinical Practice Cardiovascular Medicine* website.

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