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Intraoperative Transesophageal Echocardiography Alters Surgical Plan for Laser Lead Extraction

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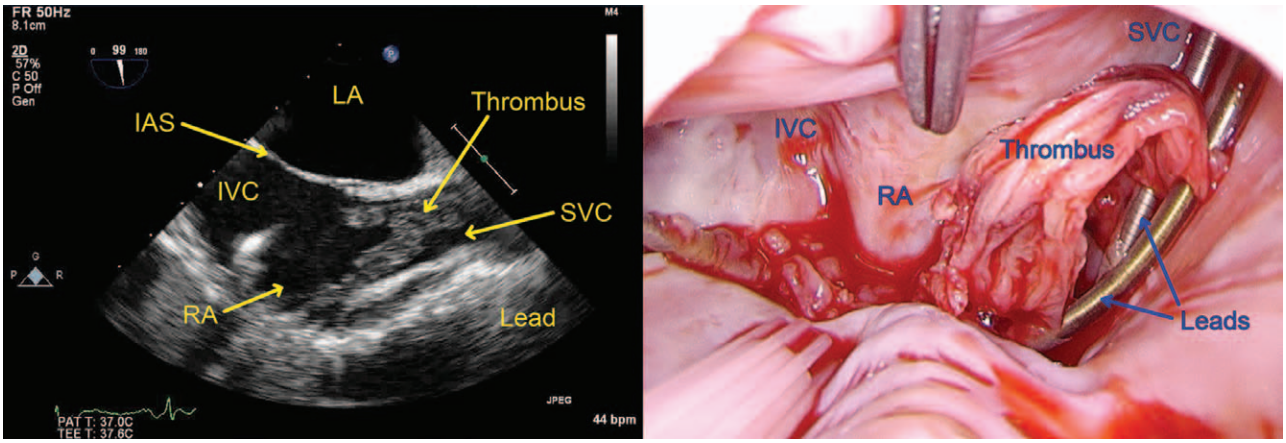

IN laser lead extractions, infected or malfunctioning permanent pacemaker or defibrillator leads are removed. Major complication rates range from 0.9 to 2.5%, and death occurs in up to 0.8% of patients.[1,2] Anesthesiologists, the primary echocardiographers in the operating room, perform transesophageal echocardiography (TEE) after induction of anesthesia to confirm preoperative findings and detect any new findings that may impact the surgical plan. TEE also monitors pericardial effusion and tamponade; diagnoses cardiac lacerations, mechanical damage to the tricuspid valve, and embolization; and detects intracardiac masses such as the thrombus identified in this patient.[1,3] Intraoperative TEE revealed a large echogenic mass attached to the lead at the junction of the superior vena cava (SVC) and the right atrium (RA), which was not visualized in the preoperative TTE. TEE offers superior visualization and characterization of intracardiac masses and provides an excellent view of posterior cardiac structures (*e.g.*, fig. atrial appendages, interatrial septum [IAS], left atrium [LA], proximal inferior vena cava [IVC], and SVC; *left*). The transvenous laser lead extraction originally planned to be performed by a cardiologist was abandoned for an open thrombectomy, and lead removal was performed by a cardiothoracic surgeon. The thrombus attached to the leads (*arrows*) can be seen in the opened RA (*right*). Device-assisted lead extraction is a high-risk procedure and should be performed in the cardiac operating room with the cardiothoracic surgery team on standby. A full intraoperative TEE, which is important in reducing procedure risk, should be the standard of care.

Competing Interests

The authors declare no competing interests.

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