

Endocarditis with Giant Vegetations on Implantable Cardioverter-Defibrillator

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Clinical presentation of infectious endocarditis is variable, with oligosymptomatic forms in extreme cases, in which prolonged fever syndrome to severe sepsis with multi-organ failure are predominant. Implantable electronic device-related endocarditis presents a high mortality rate, (2) and its diagnosis and optimal treatment still remain controversial. These images correspond to a 51-year-old man, with a history of resuscitated sudden death and subsequent implantable cardioverter defibrillator (ICD) in secondary prevention. He was admitted to the hospital due to a syncopal episode associated with tachypnea, arterial oxygen desaturation and fever, with systemic inflammatory response syndrome parameters and acute renal failure (ARF). Auscultation revealed a previously unknown 3/6 systolic murmur with prevalence of the tricuspid focus. Transthoracic echocardiography revealed a movable mass of 27 × 20 mm in the right atrium, consistent with vegetation (Figure 1), related to the ventricular ICD catheter. The mass prolapsed into the left ventricular inflow tract and seemed to involve the septal tricuspid valve, causing severe tricuspid regurgitation (see video on the web). A triple antibiotic therapy was started, and then adapted to bacteriological results (3/3 positive blood cultures for oxacillin-sensitive *S. epidermidis*). In view of suspected pulmonary embolism due to vegetative mass and in the context of ARF discouraging the use of intravenous contrast, a V/Q scintigraphy was performed, which confirmed predominant left perfusion defects, with high probability of pulmonary thromboembolism. Since large size of the vegetation along with past pulmonary embolism contraindicated the use of sheaths for noninvasive removal of the catheter, (3-5) surgery under direct vision was performed. Surgery showed a 3-mm diameter mass attached to the ICD catheter, which was removed during the procedure via right atriotomy using extracorporeal circulation and beating heart. Figure 2 shows a portion of the catheter after the vegetation was excised. Pathological examination revealed extensive necrotic tissue fragments with marked histolysis and leukocyte elements.

Conflicts of interest

None declared

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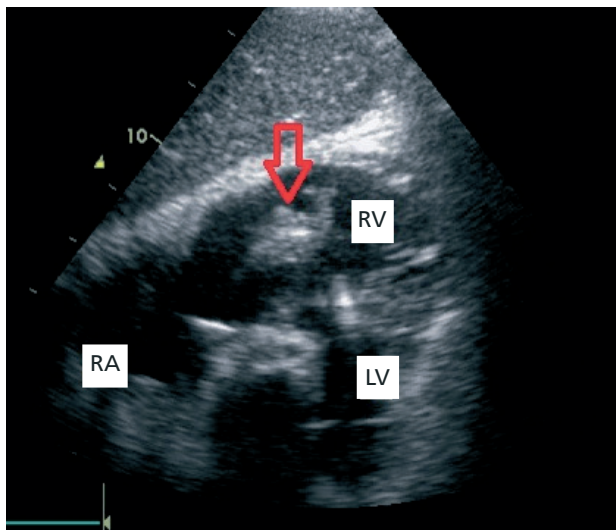


Fig. 1.



Fig. 2.

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