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## Molding thrombus of an ECMO cannula floating in the right atrium

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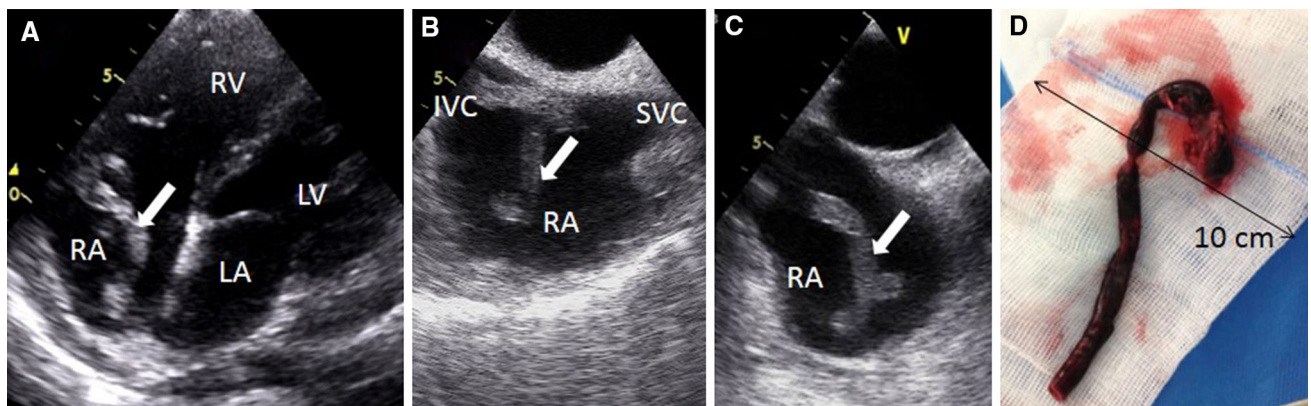
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A 23-year-old man was referred to us for veno-arterial extracorporeal membrane oxygenation (VA ECMO) support as a bridge to heart transplantation. He presented with refractory cardiogenic shock resulting from toxic cardiomyopathy secondary to recreational cocaine use. After a waiting period of 3 weeks with femoro-femoral VA ECMO support without major complications, he was transplanted. The peripheral VA ECMO was left in place for 24 h following transplantation and removed after a gradual weaning process under adequate anticoagulation. Echocardiography performed 12 h later revealed a long tubular structure, about 20 cm long, which was anchored at the middle part of the posterior wall of the right atrium and passed throughout the tricuspid valve at each diastole (Fig. 1a–c; Electronic Supplementary Material videos S1, S2). The patient was taken immediately to the operating theater for removal of this thrombus which appeared to be a perfect mold of the inflow cannula (Fig. 1d). The outcome was excellent. This case illustrates how cannula



**Fig. 1** Echocardiography after cannula removal showing the tubular thrombus. **a** Transthoracic apical 4-chamber view, **b**, **c** transoesophageal bicaval (**b**) and right atrial (**c**) views, **d** post-operative picture of the thrombus corresponding to a mold of the inflow cannula. *RV* Right ventricle, *RA* right atrium, *LV* left ventricle, *LA* left atrium, *SVC* superior vena cava, *IVC* inferior vena cava

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thrombus may appear during the weaning process, in particular during the clamping period. Cannulas should be flushed with normal saline before clamping when the thromboembolism risk has been preliminarily eliminated.

Echocardiographic control should be performed systematically during weaning process and removal of cannulas.

**Conflicts of interest** None.