

## Image in cardiology

# Hyperflow syndrome after venoarterial ECMO implantation

## Síndrome de hiperaflujo tras implante de ECMO venoarterial

Victoria Andrea Hortigüela Martín,<sup>a,\*</sup> Gonzalo Aldámiz-Echevarría del Castillo,<sup>b</sup>  
and Rafael Hernández-Estefanía<sup>b</sup>

<sup>a</sup>Servicio de Cuidados Intensivos, Hospital Fundación Jiménez Díaz, Madrid, Spain

<sup>b</sup>Servicio de Cirugía Cardiovascular, Hospital Fundación Jiménez Díaz, Madrid, Spain

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Figure 1.

A 70-year-old woman with a mechanical mitral valve underwent annuloplasty to treat severe tricuspid regurgitation. Following the procedure, the patient developed severe right ventricular dysfunction, was placed on femoro-femoral venoarterial extracorporeal membrane oxygenation (ECMO), and after surgical exposure of vessels, a Dacron graft was placed in the artery. After the intervention, she showed evidence of bleeding. She was reviewed by the surgery team, which excluded mechanical complications and active bleeding. The images (figure 1A-C) depict a gradual volume increase in the leg bearing the arterial cannula and development of large bullae, with no evidence of a distal perfusion deficit. Limb hyperperfusion was suspected, but despite repositioning of the arterial cannula and intensive therapeutic efforts, the patient died of refractory shock at 15 hours after device implantation. Informed consent for the publication of this case was provided by the patient's relatives.

Hyperperfusion syndrome after ECMO implantation is an uncommon complication related to multiple factors (mechanical compression of the graft, bleeding, thrombosis, atheromatosis, vascular malformations) that can compromise the benefit of the technique. Prompt diagnosis and treatment optimizing cannulation are decisive for the patient's prognosis.

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### AUTHORS' CONTRIBUTIONS

All authors participated equally in the development of the idea and design of the manuscript, data collection and interpretation, writing of the draft, review of the intellectual content, and approval of the final version for publication.

### CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest related to this study.

\* Corresponding author:

E-mail address: [viviandreaahm@hotmail.com](mailto:viviandreaahm@hotmail.com) (V.A. Hortigüela Martín).

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