Medicina Intensiva 49 (2025) 502119

medicina intensiva

http://www.medintensiva.org/en/

IMAGES IN INTENSIVE MEDICINE

ProtekDuo cannula through Melody transcatheter pulmonary valve prosthesis bridge to heart–lung transplantation

Cánula ProtekDuo a través de prótesis pulmonar Melody puente a trasplante cardiopulmonar

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Available online 6 February 2025

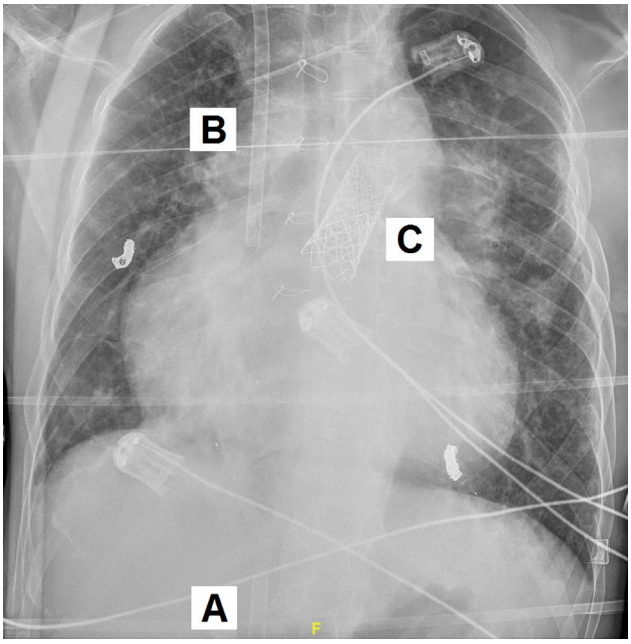

Figure 1

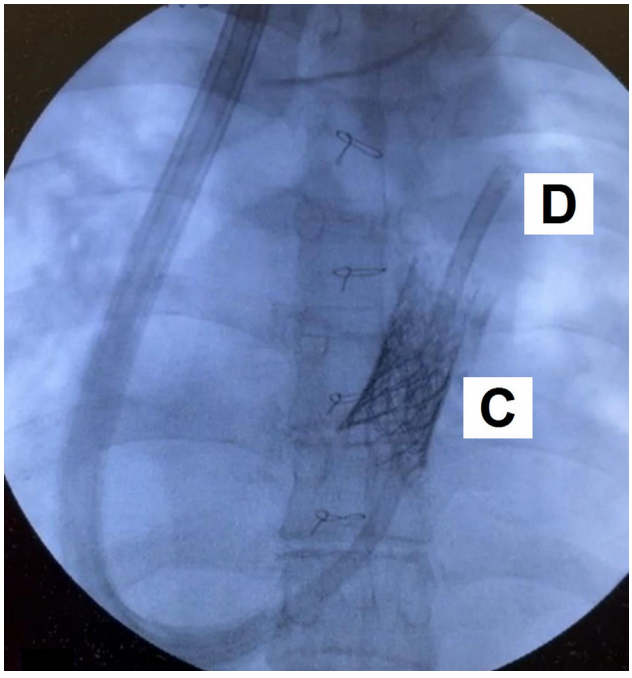

Figure 2

DOI of original article: https://doi.org/10.1016/j.medin.2024.502119
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https://doi.org/10.1016/j.medine.2025.502119

A 33-year-old man with Rendu–Osler and congenital aortic stenosis corrected with Ross surgery. Severe stenosis of the homograft with transcatheter implantation of a Melody pulmonary valve device (Medtronic, Minneapolis, MN, United States). Severe mixed postcapillary pulmonary hypertension with severe right ventricular dysfunction led to his inclusion on the heart–lung transplant list. He was admitted for respiratory failure, which required percutaneous veno-venous ECMO. Fig. 1 illustrates the femoral drainage cannula in the inferior vena cava (A), the jugular return cannula in the right atrium (B), and the Melody valve in the pulmonary artery (C) are visible. Hemodiafiltration was required due to right heart failure. On day 5, we decided to switch to a ProtekDuo double-lumen cannula (LivaNova, London, United Kingdom) for right heart support with an oxygenator as a bridge therapy to heart-lung transplant. Fig. 2 illustrates the ProtekDuo cannula (D) traversing the Melody valve (C), with drainage into the right atrium and the distal return end in the pulmonary artery. Hemodiafiltration was discontinued 1 week later. The patient underwent rehabilitation while waiting for the transplant. However, he presented with uncontrollable GI bleeding and ended up dying 2 weeks later.

CRediT authorship contribution statement

All authors meet the following criteria:
- Contributed to the conception and design of the manuscript.
- Wrote the article or conducted a critical review of its content.
- Give their ultimate final approval to the version to be published.
- Agree to take responsibility for all aspects of the article.

Ethical responsibilities

Reviewed by the Research Ethics Committee for Medicinal Products of Hospital Universitario y Politécnico La Fe (Valencia, Spain). Its approval was not deemed necessary as this case report that does not constitute biomedical research. No identifying patient data appears.

Funding

None declared.

Declaration of competing interest

Manuel Pérez-Guillén has received fees from Palex Medical. The remaining authors declared no conflicts of interest whatsoever.