

Severe postransplant tricuspid regurgitation: treatment with the PASCAL system

Insuficiencia tricuspídea grave postrasplante: tratamiento con dispositivo PASCAL

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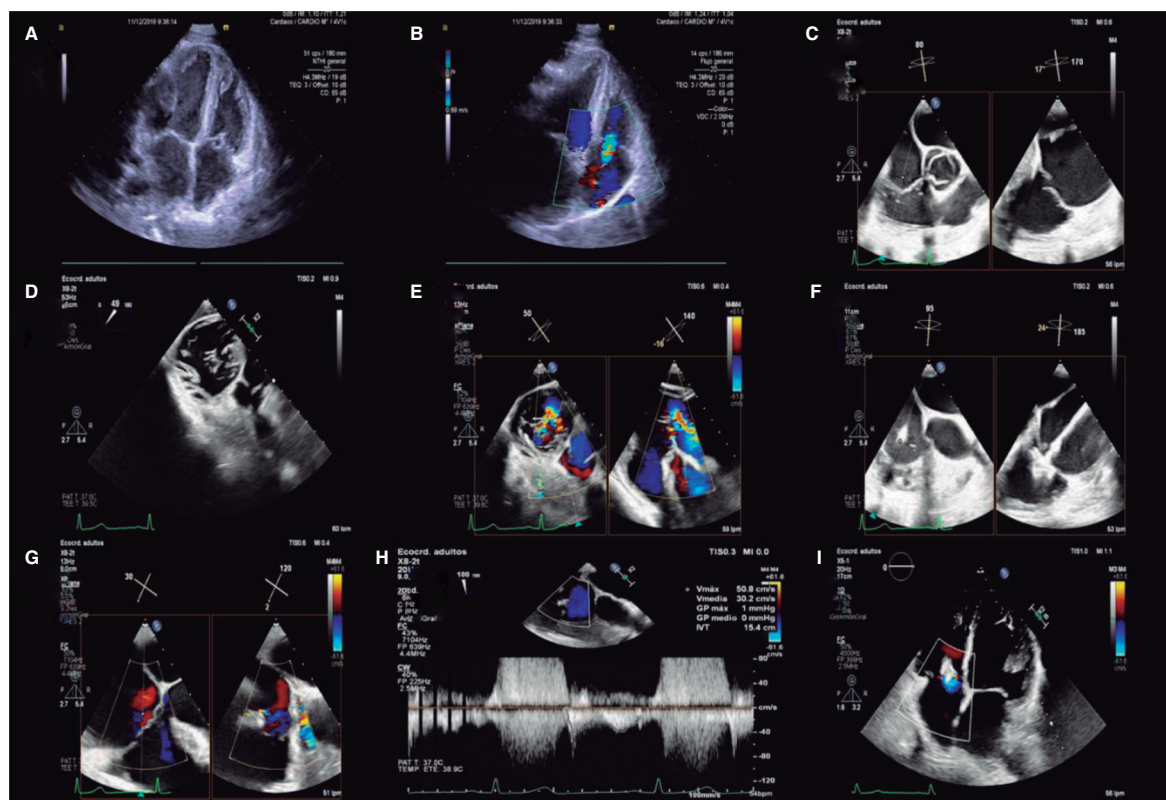


Figure 1.

We report the case of a 43-year-old man with a past medical history of heart transplantation in 2017 due to ischemic dilated cardiomyopathy. One month after the transplant, after routine endomyocardial biopsy, a follow-up transthoracic echocardiogram revealed the presence of moderate tricuspid regurgitation (TR). As a result, clinical and echocardiographic monitoring was initiated.

Four years later, the patient's functional class progressed to NYHA FC III-IV with signs of congestion. Transthoracic echocardiography showed good biventricular function, dilated right chambers, and severe TR with a vena contracta width of 12 mm, and an effective regurgitant orifice of 0.45 cm² due a prolapsed septal leaflet (figure 1A,B and videos 1-2 of the supplementary data). A transesophageal echocardiogram confirmed that the severe TR was due to a prolapsed septal leaflet in the portion proximal to the posteroseptal commissure,

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with signs of ruptured chordae tendineae (figure 1C,E; videos 3-5 of the supplementary data). The case was discussed with the heart team, which decided to perform a percutaneous edge-to-edge repair due to the high surgical risk. Due to its availability in our center, a PASCAL Ace device (Edwards Lifesciences, United States) was successfully implanted between the septal and posterior leaflets at the site of the prolapse (figure 1F,H; videos 6-7 of the supplementary data) under general anesthesia and transesophageal echocardiography guidance, with mild residual TR. Three months later, the patient remained asymptomatic, with minimal residual TR on transthoracic echocardiography (figure 1I; video 8 of the supplementary data). To our knowledge, this is the first reported case of severe iatrogenic TR after heart transplantation treated with a PASCAL device.

FUNDING

None declared.

ETHICAL CONSIDERATIONS

The patient's prior written informed consent was obtained for the publication of his case. Since consent had already been obtained and the procedure is routinely performed in clinical practice, the research ethics committee of our center does not require this kind of publication to be submitted for approval. The possible sex and genre variables were taken into consideration.

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

No artificial intelligence tool has been used during the preparation of this work.

AUTHORS' CONTRIBUTIONS

All the authors participated in the drafting and revision of this manuscript, and agreed on its content.

CONFLICTS OF INTEREST

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SUPPLEMENTARY DATA



Supplementary data associated with this article can be found in the online version available at <https://doi.org/10.24875/RECICE.M23000413>.