

Images in cardio-thoracic surgery

Implanted CardioWest-t total artificial heart: three-dimensional computed tomography reconstruction[☆]

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A 38-year-old man underwent a CardioWest-t total artificial heart (TAH-t; SynCardia, Tucson, AZ, USA) implantation for treatment of end-stage heart failure due to idiopathic dilative cardiomyopathy (Fig. 1). The patient was discharged on Berlin Heart CardioWest-t driver. He has been on support for 708 days and is waiting for transplantation.



Fig. 1. Post-implantation 3D computed tomography (CT) scan (multidetector CT dual source – 64 slices, Siemens, Erlangen, Germany) reconstruction of the CardioWest-t total artificial heart (TAH) showing the satisfactory position of the device in the chest of the patient (Video 1) (patient consensus was obtained).

The left artificial ventricle is connected via the left atrial inflow connector to the left atrium, and via the aortic outflow cannula to the aorta. The right artificial ventricle is connected via the right atrial inflow connector to the right atrium and via the pulmonary artery outflow cannula to the pulmonary artery. The two driveline conduits are tunneled through the chest wall.

After rethoracotomy for bleeding of the patient, the 3D CT scan evaluation showed no blood leak or torsion and kinking of both atria and great vessels, and the satisfactory position of the device components as well.

Appendix A. Supplementary data

Supplementary data associated with this article (Video 1) can be found, in the online version, at [doi:10.1016/j.ejcts.2010.11.017](https://doi.org/10.1016/j.ejcts.2010.11.017).

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