

Giant ascending aortic pseudoaneurysm fistulized into right atrium

Giant ascending aortic pseudoaneurysm fistulized into right atrium

Delicia Gentille-Lorente*

Department of Cardiology, Tortosa Verge de la Cinta Hospital, IISPV. Tortosa, Tarragona, Spain

Sixty-nine-year-old male, with a history of mitral-aortic mechanical valve replacement and ascending aorta repair with a tubular prosthesis two years prior, who was admitted with biventricular heart failure (predominantly right). In the echocardiogram, highlighted the existence of a severely dilated and dysfunctional right ventricle (RV), a prostheses with high gradients and a severe

pulmonary hypertension; the transesophageal echocardiography (TEE) ruled out prosthetic thrombosis. By means of computed tomography, the existence of a 92 x 95 mm diameter pseudoaneurysm of the ascending aorta (AAP) was detected; this AAP was surrounding the aortic graft and compressed the right atrium (RA) (Fig. 1 [*]). A second TEE also demonstrated the

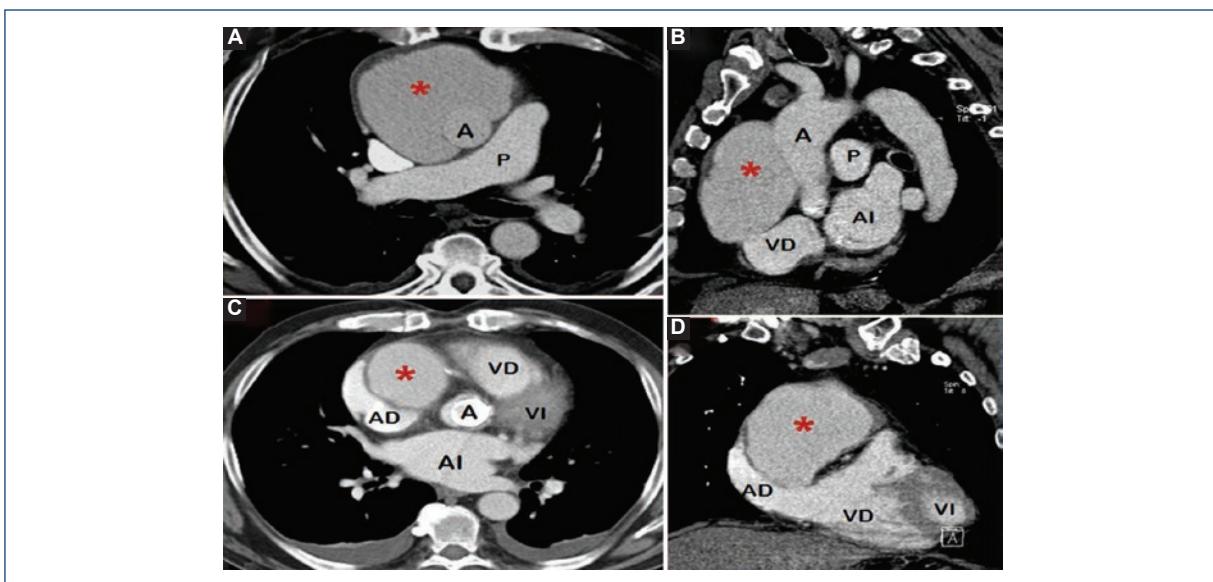


Figure 1. Computed tomography images. **A and B:** axial sections where the large pseudoaneurysm (*) is observed to be formed around the aortic tubular prosthesis, as well as the severe compression it exerts on the RA. **C and D:** same alterations but observed in sagittal sections made at the same levels.

A: aorta; AD: right atrium; AI: left atrium; VD: right ventricle; VI: left ventricle; P: pulmonary artery.

Correspondence:

*Delicia Gentille-Lorente

E-mail: dgentille.ebre.ics@gencat.cat

2604-7063 / © 2019 Instituto Nacional de Cardiología Ignacio Chávez. Published by Permanyer. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Date of reception: 17-05-2019

Date of acceptance: 15-08-2019

DOI: 10.24875/ACME.M20000088

Available online: 09-02-2020

Arch Cardiol Mex (Eng). 2020;90(1):88-89

www.archivoscardiologia.com

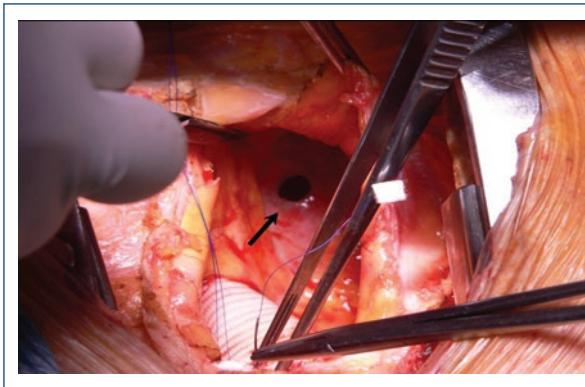


Figure 2. Image of the surgery: opening of the aortic pseudoaneurysm. After drainage of the pseudoaneurysm, the aortic tubular prosthesis, not epithelialized, and at the bottom, on its wall, the orifice (arrow) of the fistula into the right atrium are observed.

existence of a fistula connecting the AAP to the RA. The patient underwent surgery: the fistula was closed (Fig. 2 [arrow]), and the aortic valve prosthesis together with the aortic tubular graft (which was not epithelialized and had ruptures in its proximal and distal anastomoses as origins of the PAA), were replaced by a valved tubular aortic prosthesis.

AAP is a very rare pathology; its incidence, after an aortic intervention, is < 1% and it is favored by perioperative infections¹. Usually, its origin is in aortotomy or anastomosis stitches or suture lines (of aortocoronary bypass prostheses or grafts), or at puncture, aortic cannulation or clamping points. Clinical presentation varies according to its localization, size

and compression on adjacent structures; however, its presentation as right heart dysfunction (superior vena cava syndrome, RV inflow tract obstruction, or fistula into pulmonary artery, RA or RV) is exceptional^{2,3}.

Funding

None.

Conflict of interests

None.

Ethical disclosures

Protection of people and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained written informed consent of the patients and/or subjects mentioned in the article. The corresponding author is in possession of this document.

References

1. Rodrigues A, Santos I, PaduáCh, Souza Y. Pseudoaneurysm of ascending aorta. *J Gen Emerg Med*. 2017;2(5):29.
2. Kar P, Gopinath R, Padmaja D, Kumar RV. Complex pseudoaneurysm of ascending aorta: Unusual cause of right heart dysfunction-implications to the anesthesiologist. *J Anaesthesiol Clin Pharmacol*. 2015;31(2):2469.
3. Howard E, Velasco C, Roulland Ch, Rafael A. Aorto-right atrial fistula after bentall repair. *Proc (Bayl Univ Med Cent)*. 2017;30(3):301-2.