

Image in cardiology

Giant right coronary aneurysm with left ventricular fistula

Aneurisma gigante de la coronaria derecha con fístula al ventrículo izquierdo

Hiroki Nakamura,* Kouki Fukuda, and Tatsuhiko Masue

Department of Anesthesiology, Gifu Prefectural General Medical Center, Gifu, Japan

Received 31 July 2023; Accepted 12 September 2023

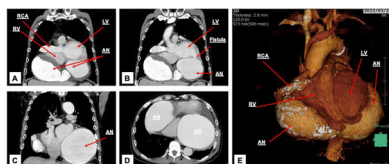


Figure 1.

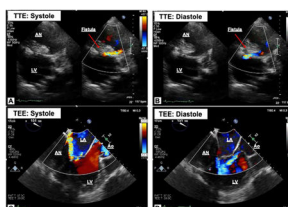


Figure 2.

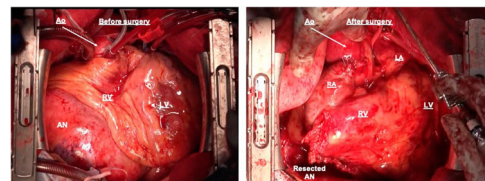


Figure 3.

A coronary aneurysm compressing the cardiac chambers and lungs is uncommon. We present the case of such a patient. Heart murmur was first noted at the age of 10 years. When the patient was in his thirties, an angiogram revealed a 50- to 60-mm coronary aneurysm during workup for arrhythmia, but he refused surgery. No symptoms of Kawasaki disease were recorded in his history. At age 55 years, early-stage colorectal cancer was suspected, and a computed tomography scan in our hospital showed a 70 mm coronary aneurysm as an incidental finding. Even at this time, the patient wanted to postpone surgery. During follow-up, dyspnea on exertion was observed at age 57 years and the symptom gradually worsened. At age 60 years, a computed tomography scan showed an enlarged giant right coronary aneurysm, measuring 22 mm at the origin, 86 mm ventro-caudal to the right ventricle, and 127 mm dorso-caudal to the left ventricle. The scan also showed a fistula between the coronary aneurysm and the left ventricle (figure 1A-E, videos 1 and 2 of the supplementary data: AN, aneurysm; LV, left ventricle; LA, left atrium; RA, right atrium; RCA, right coronary artery; RV, right ventricle). Transthoracic echocardiography showed bidirectional flow at the fistula and transesophageal echocardiography showed that the left ventricle was compressed by the aneurysm with mild aortic regurgitation and moderate mitral regurgitation (figure 2A-D, video 3 of the supplementary data: Ao, aorta). The patient underwent surgical treatment, involving direct closure of the coronary artery fistula and resection of the right coronary aneurysm with sleeve reconstruction (figure 3). Written consent for publication was obtained from the patient.

FUNDING

Not applicable.

ETHICAL CONSIDERATIONS

Written consent for publication of this report and the accompanying images was obtained from the patient. We have not received ethics committee approval. However, we have removed patient names, patient numbers, and other information to ensure patient privacy. We have considered the SAGER guidelines in the preparation of our paper.

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

We have not used any artificial intelligence tools in the writing of our manuscript.

AUTHORS' CONTRIBUTIONS

T. Masue, H. Nakamura, and K. Fukuda were involved in anesthetic management of this patient. H. Nakamura wrote this paper. K. Fukuda and T. Masue checked figures, videos, and main manuscript. All authors read and approved the final manuscript.

CONFLICTS OF INTEREST

None.

ACKNOWLEDGEMENTS

The authors would like to thank Edanz for editing a draft of this manuscript.

APPENDIX A. SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at <https://doi.org/10.1016/j.rec.2023.09.003>.

* Corresponding author.

E-mail address: hinakamura-kob@umin.ac.jp (H. Nakamura).

Available online 5 October 2023