

Images in Congenital Cardiac Disease

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Author for correspondence:

D. van der Linde, Department of Cardiology, Erasmus Medical Center, PO Box 2040, 3000 CA Rotterdam, the Netherlands. Tel: +31(0)107032432; Fax: +31(0)107035498. E-mail: d.vanderlinde@erasmusmc.nl

Coronary aneurysm in a young patient with Turner syndrome

Denise van der Linde¹ , Ricardo P. J. Budde² and Jolien W. Roos-Hesselink¹

¹Department of Cardiology, Erasmus Medical Center, Rotterdam, the Netherlands and ²Department of Radiology, Erasmus Medical Center, Rotterdam, the Netherlands

Abstract

A young woman with Turner syndrome was found to have a large coronary aneurysm in the left anterior descending coronary artery upon CT angiogram screening for aortic pathology.

A 35-year-old woman, known with Turner syndrome, was referred for cardiac screening to our outpatient clinic for adult CHD. As a teenager, cardiac screening had not shown any abnormalities. She has never had any cardiac symptoms and her exercise tolerance is good. Her electrocardiogram and physical examination were unremarkable.

Echocardiography showed a normal bi-ventricular function, no significant valve disease, and mild aortic root dilatation of 37 mm (corrected for body surface area 22 mm/m²). A CT angiogram confirmed this aortic root dilatation. In addition, the CT angiogram showed an aneurysm of the left anterior descending coronary artery, measuring up to 7.7 mm (Fig 1a–c indicated by the arrow).

Coronary origins were normal and the other coronaries did not show any abnormalities. Turner syndrome, also known as 45,X0, is a genetic condition characterised by a range of congenital abnormalities such as webbed neck, short stature, cardiac abnormalities, autoimmune disorders, and reproductive problems. Associated congenital cardiac defects include a bicuspid aortic valve, aortic dilatation, and coarctation of the aorta. Aberrant origin of the coronaries has also been described.^{1,2} However, coronary aneurysms thus far have not been reported. Coronary artery aneurysms are defined as dilatation of the coronary artery exceeding 50% of the reference vessel diameter.³ Our patient did not have any signs of another aetiology for her coronary aneurysm such as the history of Kawasaki syndrome or other associated autoimmune diseases. Therefore, we think that this aneurysm is most likely related to the cardiac phenotype of Turner syndrome, warranting further research in other Turner women. Furthermore, our findings emphasise the key role of multimodality cardiovascular imaging in these patients.⁴

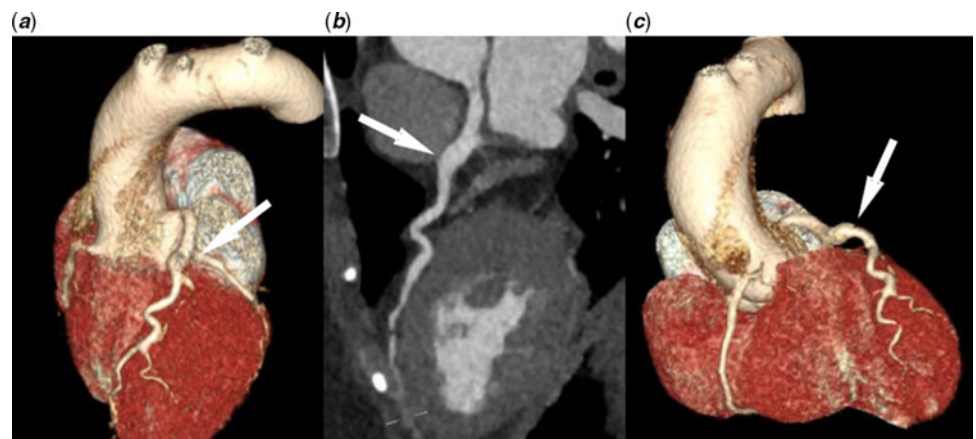


Figure 1. Arrow indicates a large coronary aneurysm in the left anterior descending coronary artery, measuring up to 7.7 mm.

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Conflicts of interest. None.

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Ethical standards. The authors declare that they comply with appropriate institutional and international guidelines for ethical guidelines. Informed consent was obtained from the patient to publish this case report.

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