

Acquired left coronary artery fistula to right ventricular outflow tract

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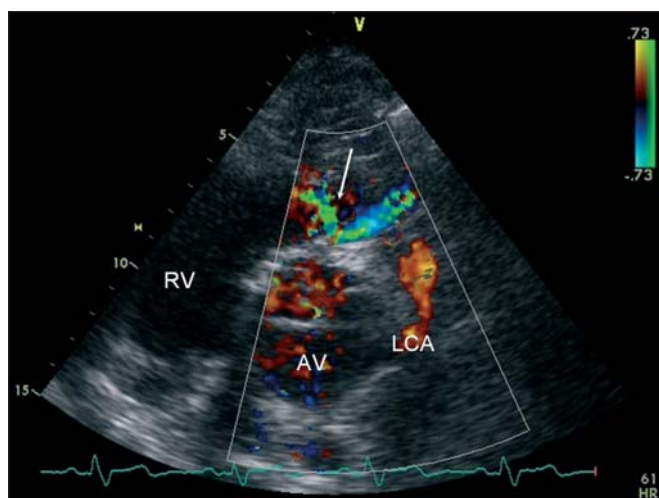


Figure 1. Transthoracic echocardiogram, parasternal short axis. Diastolic Doppler flow signal in the right ventricular outflow tract originating from a coronary fistula (arrow). AV=aortic valve, RV=right ventricle, LCA=left coronary artery.

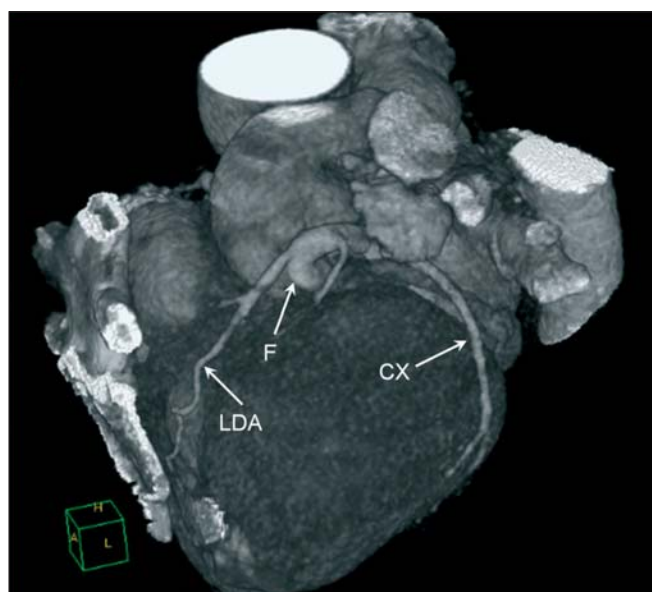


Figure 2. Three-dimensional reconstruction of ECG-triggered multislice cardiac CT showing the fistula (F) originating from the left coronary artery leading to the right ventricular outflow tract. LDA=left descending artery, CX=circumferential artery.

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A 59-year-old asymptomatic male was referred to our hospital for evaluation 44 years after surgical correction of a Fallot's tetralogy. Transthoracic echocardiography showed a good surgical result with only a mild subvalvular pulmonary stenosis and mild pulmonary regurgitation. However, in the parasternal short axis a diastolic colour Doppler flow was seen in the right ventricular outflow tract with a maximum velocity over 4 m/s (figure 1). Pulmonary regurgitation seemed very unlikely because of the high velocity in the absence of elevated pulmonary artery pressure. Because a fistula was suspected, a multislice computer tomography scan was performed. This scan showed a large coronary artery fistula to the right ventricular outflow tract originating from the left coronary artery (figure 2).

A small left descending and circumferential artery originated from the large main stem before the vessel curved via the posterior wall of the pulmonary trunk to the right ventricular outflow tract. No intervention was undertaken because the myocardial perfusion scan did not show myocardial ischaemia, and shunt magnitude, calculated by magnetic resonance imaging, was not of haemodynamic significance.

In this section a remarkable 'image' is presented and a short comment is given.

We invite you to send in images (in triplicate) with a short comment (one page at the most) to Bohn Stafleu van Loghum, PO Box 246, 3990 GA Houten, e-mail: l.jagers@bsl.nl.

'Moving images' are also welcomed and (after acceptance) will be published as a Web Site Feature and shown on our website: www.cardiologie.nl

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Acquired coronary artery fistula is an uncommon but serious complication after open heart surgery for congenital heart disease.^{1,2} Right ventricular myotomy or myomectomy increases the risk of these acquired fistulas.³ In our patient a coronary fistula was first noted over 40 years after the correction of tetralogy of Fallot. For a good interpretation of the imaging results obtained during routine follow-up, it is important for the treating physician to be aware of this complication. ■

References

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