Twist in left ventricular noncompaction


Coronary aneurysm mimicking a five chamber heart

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A 47-year-old soccer trainer was referred for a precordial murmur incidentally noted on routine physical examination. Cardiac auscultation revealed a grade 4/6 continuous murmur heard best on the left sternal border. No other sign was detected on physical examination. Chest X-ray and ECG showed no abnormalities. Transthoracic echocardiography revealed an echo-free cavity measuring 32 × 14 mm within the interventricular septum (Panels A and B; Supplementary data online, Movie S1). Colour Doppler imaging showed a continuous, mainly diastolic flow (Supplementary data online, Movie S2) within the structure, and a hyperaemic left anterior descending artery flowing entry into its cavity. The heart chambers, valves, and left ventricular performance were entirely normal.

Computed tomography angiography demonstrated a dilated left anterior descending artery streaming into a distinct cavity measuring 5 × 3 cm near the cardiac apex (Panels C and D). The diagnosis of communication between the artery and that structure was confirmed by conventional coronary angiography.

Giant coronary artery aneurysms (defined as aneurysms > 20 mm in diameter) are extremely rare. Therapeutic options include surgery or transcatheter closure. Although no clear consensus exists on the management of such a rare condition, clinically silent coronary artery aneurysms are reported to be well tolerated. A conservative approach is usually preferred.

Atrial four chamber (Panel A), parasternal short-axis (Panel B) computed tomography angiography images of the cavity (Panels C and D).

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.

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