

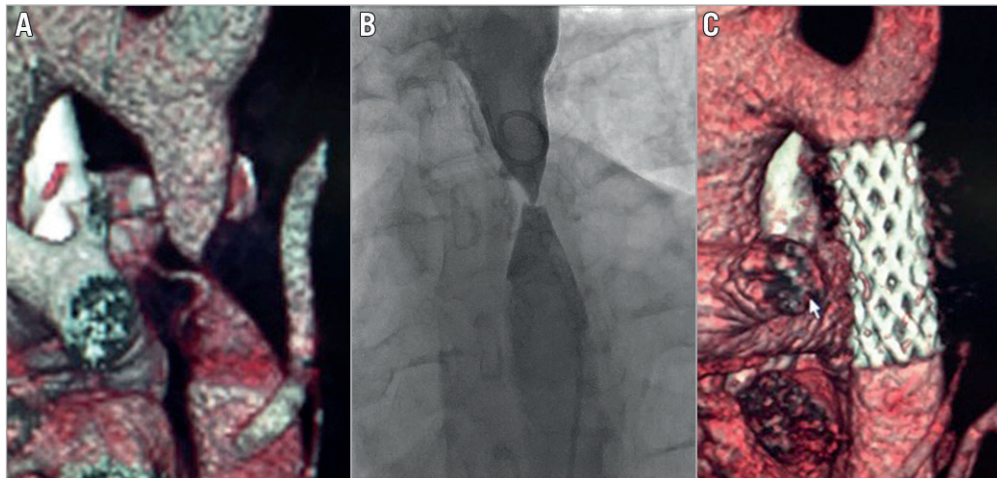
Percutaneous repair of severe coarctation of the aorta



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A 21-year-old asymptomatic male was referred with severe hypertension. Blood pressure was 190/100 mmHg in both arms. Examination revealed absent femoral and pedal pulses. Electrocardiography showed sinus rhythm with left ventricular hypertrophy. Echocardiography demonstrated moderate left ventricular hypertrophy with a trileaflet aortic valve. Computed tomographic aortography (CTA) demonstrated severe discrete coarctation with a diameter of <1 mm at the aortic isthmus (**Panel A**), and invasive aortography (via dual injections) demonstrated complete aortic occlusion (**Panel B**).

Transcatheter intervention was performed via both radial and femoral arterial access (**Moving image 1**). The occlusion was crossed from above with an exchange length 0.035-inch straight wire (Terumo Corp., Tokyo, Japan), which was snared in the descending aorta (EN Snare[®], 12-20 mm; Merit Medical, Galway,

Ireland) and externalised to allow delivery of a 14 Fr Mullins sheath (Medtronic, Dublin, Ireland). An 8-zig 45 mm covered Cheatham-Platinum stent (NuMED, Hopkinton, NY, USA) was deployed on a 16 mm balloon without predilation. The invasive peak-peak gradient dropped from 60 to 0 mmHg. At one year, the patient remains well and is normotensive on one antihypertensive agent. Repeat CTA confirmed no aortic wall injury (**Panel C**).

Conflict of interest statement

The authors have no conflicts of interest to declare.

Supplementary data

Moving image 1. Video demonstrating percutaneous intervention on the coarctation of the aorta.

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