


CARDIOVASCULAR FLASHLIGHT

In a pinch

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A 38-year-old woman presented with progressive exertional chest tightness. She had a history of an unrepaired secundum atrial septal defect and Eisenmenger’s syndrome with severe pulmonary hypertension. Echocardiogram (Panel A) revealed right ventricular hypokinesis, right ventricular enlargement with flattening of the interventricular septum (arrow), and a right ventricular systolic pressure of 120 mmHg. Initial coronary computed tomographic angiography (CTA) findings included a dilated pulmonary artery trunk (46 mm), a calcium score of 0, and normal coronary arteries. She was discharged home shortly, but the discrepancy between her symptoms and the CTA interpretation prompted further physician review of her CTA which suggested posterior displacement of and compression of the ostial left main coronary artery (LMCA) as it coursed between the aortic root and the enlarged pulmonary artery (Panel B, arrow). Invasive coronary angiography demonstrated an 80% eccentric stenosis of the ostial LMCA (Panel C). Intravascular ultrasound revealed slit-like stenosis of the ostial LMCA with pulsatile, extrinsic compression by the enlarged pulmonary artery (Panel C, insert). The patient was too high risk for coronary artery bypass surgery due to her underlying pulmonary hypertension and right ventricular dysfunction. Direct stenting of her ostial LMCA using a 5.0 × 16 mm Libére™ (Boston Scientific, Natick, MA, USA) bare metal stent resulted in 0% residual stenosis (Panel D), TIMI-3 flow, and resolution of her symptoms. Six months later, she was angina-free and coronary angiography revealed a widely patent LMCA stent.

All authors contributed to patient management and the writing of the report. Written consent was obtained.

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