Pulmonary Artery Percutaneous Stenting in a Patient with Takayasu's Arteritis
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Clinical History
A 46-year old woman with a six-month history of progressive exertional dyspnea, moderate tricuspid insufficiency and moderate pulmonary hypertension was admitted to the hospital for further evaluation.

Findings
An ECG-gated computed tomography arteriogram (CTA) was negative for pulmonary embolism but demonstrated multifocal areas of smooth concentric narrowing and vessel wall thickening involving the distal right pulmonary artery, right upper lobe pulmonary artery, interlobar pulmonary artery and left main pulmonary artery as well as the left common carotid artery and the left subclavian artery (Figure A and C), consistent with Takayasu's disease. The coronary arteries were normal without coronary artery disease, vessel narrowing or wall thickening.

Diagnostic pulmonary angiography with successful angioplasty and stenting of the interlobar right pulmonary artery, right upper lobe pulmonary artery and left lower lobe pulmonary artery was subsequently performed (Figure B and D).

Discussion
Symptomatic pulmonary artery stenosis is a relatively uncommon manifestation of Takayasu's arteritis. Clinical observations regarding the safety and efficacy of stent implantation in branch pulmonary arteries and their influence on clinical management have been encouraging(1). A few studies have shown that percutaneous angioplasty and stent implantation is a safe and effective treatment in patients with pulmonary stenosis caused by Takayasu's arteritis (2,3).

Simultaneous diagnostic enhancement of the coronary and pulmonary arteries (>300 HU in the coronary arteries and >200 HU in the pulmonary arteries) is now possible with modern scanners and protocols(4). This case demonstrates that ECG-Gated CTA allows excellent anatomic depiction for simultaneous pre-intervention assessment of coronary artery disease, and pulmonary artery evaluation. Furthermore, it is a great non-invasive tool for follow-up in patients after percutaneous or surgical interventions.

REFERENCES

Editors:
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