Journal of the American College of Cardiology
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Published by Elsevier Inc.

Vol. 54, No. 19, 2009
ISSN 0735-1097/09/$36.00
doi:10.1016/j.jacc.2008.02.091

IMAGES IN CARDIOLOGY

Repaired Coarctation of the Aorta Imaged by 64-Detector Computed Tomography

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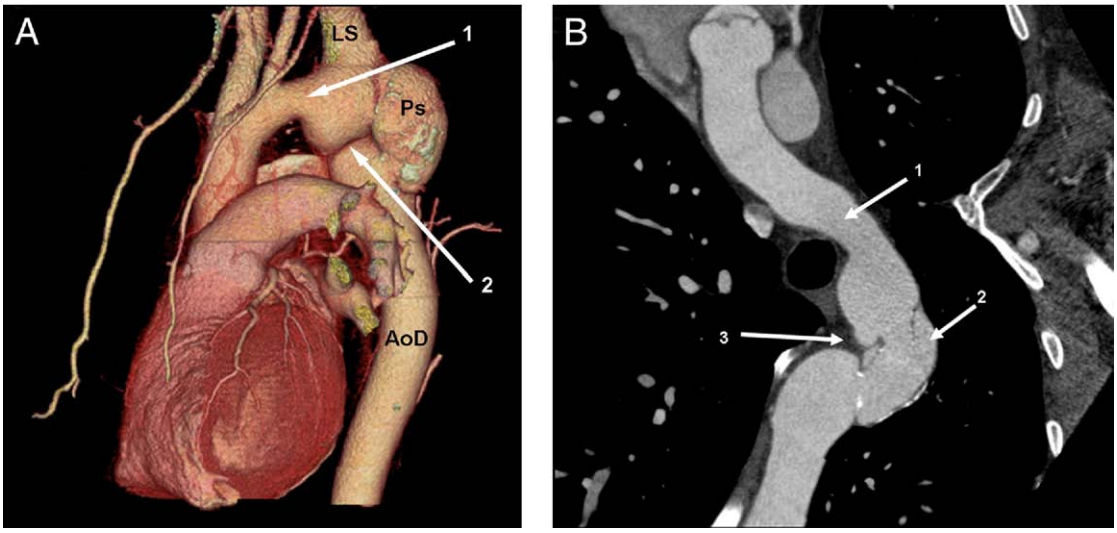

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Manuscript received February 4, 2008; revised manuscript received February 12, 2008, accepted February 22, 2008.

A 35-year-old man with a history of aortic coarctation (CoA) repair during childhood presented with the complaint of atypical chest pain. During childhood, he had undergone CoA repair with the placement of a conduit from the aortic arch just distal to the left subclavian artery (LS) to the proximal descending aorta (AoD) immediately distal to the coarctation. He had done well for years and now presented with atypical chest pain occurring at rest. He was referred for computed tomographic angiography using 64-detector computed tomography for evaluation. The LS was noted to be markedly dilated in its proximal portion. Also noted was an intact CoA conduit with surrounding pseudoaneurysm likely secondary to a conduit leak after surgery that stabilized. A biscupid aortic valve was noted with dysplastic and thickened leaflets, which otherwise appeared to open widely. The patient was referred to a cardiothoracic surgeon for discussions about surgical repair and was started on a regimen of metoprolol to prevent further dilation of the pseudoaneurysm.

(A) Surface rendered 3-dimensional reconstruction of the heart and great arteries viewed in left anterior oblique orientation. The dilated LS rises just beyond the hypoplastic distal aortic arch **(arrow 1)**. The contrast-filled pseudoaneurysm (Ps) extends from just beyond the origin of the LS and aortic coarctation **(arrow 2)** to the AoD. **(B)** Multiplanar reconstruction of the aorta shows the hypoplastic distal aortic arch **(arrow 1)**, and the Ps **(arrow 2)** external to the aortic conduit, which bypasses the coarctation **(arrow 3)**.