Images in cardio-thoracic surgery

Three-dimensional demonstration of the collateral circulation to the artery of Adamkiewicz via internal thoracic artery with 16-row multi-slice CT

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A 74-year-old man who previously underwent a repair of an infrarenal abdominal aortic aneurysm was scheduled for a repair of his thoracic aortic aneurysm. CT angiography using 16-row multi-slice CT clearly demonstrated the artery of Adamkiewicz and its collateral circulation via internal thoracic artery (Figs. 1 and 2).

Fig. 1. The anterior view of volume rendering image with semitransparent skeletal system and aorta shows that the left 8th intercostal artery (ICA 8), which is the origin of the artery of Adamkiewicz (arrow), is occluded proximally at the aorta. This image also shows collateral circulation from the left internal thoracic artery (ITA) to ICA 8. T8: 8th thoracic vertebra.

Fig. 2. (A) A curved planar reformatted image shows full continuity from the ITA to the artery of Adamkiewicz artery (arrow) via ICA 8. (B) A magnified image of the artery of Adamkiewicz (arrow).