Images in cardio-thoracic surgery

Computed tomography for detection and postoperative imaging of the left anterior descending artery occlusion incompletely visualized by conventional angiography

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A 55-year-old male with Canadian Cardiovascular Society (CCS) class III angina underwent coronary angiography failing to visualize the complete course of distal left anterior descending artery (LAD) occlusion (Fig. 1A, and Videos 1 and 2). Computed tomography revealed wide lumen of distal LAD (Fig. 1B) and the patient underwent successful bypass grafting (Fig. 2).

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Fig. 1. LAO angiographic view failing to visualize the accurate course of distal LAD (black arrowheads) (A). CT curved multiplanar reconstruction demonstrating clearly the distal segment of LAD (B). Cx: circumflex artery; Dg: diagonal branch; LAD: left anterior descending artery.

Fig. 2. CT sagittal maximum intensity projection performed 12 months after surgical revascularization confirmed good patency of the left internal mammary artery jump graft to the LAD (A). 3D volume-rendered reconstruction showing patent arterial jump graft to the LAD, first diagonal branch and second obtuse marginal branch (B). 3D volume-rendered reconstructions demonstrating non-stenotic anastomotic site to the LAD (C and D). LAD: left anterior descending artery; LIMA: left internal mammary artery.

Appendix A. Supplementary data

Supplementary data associated with this article (Video 1 and Video 2) can be found, in the online version, at doi:10.1016/j.ejcts.2011.02.058.