Images in cardio-thoracic surgery

Diagnosis of anomalous origin of the circumflex artery by multidetector CT

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A 38-year-old patient was referred for aortic valve replacement. Coronary angiography showed an anomalous origin of the circumflex artery. A 16-channel multidetector row CT showed the course of the artery (Fig. 1). Virtual endoscopy imaging showed its ostium to be near of the right coronary artery (Fig. 2a). This finding was ascertained at surgery (Fig. 2b).

Fig. 1. Sixteen-channel multidetector row CT image. The arrows point the course of the anomalous circumflex artery, which arises near the origin of the right coronary artery (R, red arrow).

Fig. 2. (a) Virtual intraaortic endoscopy shows the ostia of both right and circumflex coronary arteries (the differences in size are due to the slanted take-off of the circumflex artery). (b) Operative field showing both ostia in the anterior wall of the aorta.