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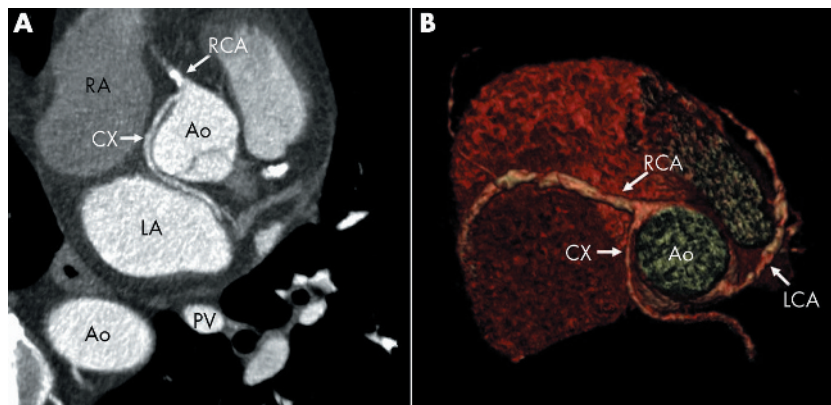
## IMAGES IN CARDIOLOGY

doi: 10.1136/hrt.2006.090233

### Multislice cardiac computed tomographic images of anomalous origin of the left circumflex artery from the right coronary sinus

**A** 64-year-old man with no significant coronary risk factors presented with a history of retrosternal nocturnal chest pain over several months. He said he had not experienced paroxysmal dyspnoea, orthopnoea, palpitations, syncope, oedema, or claudication. The clinical examination was unremarkable for heart disease. A stress echo test revealed minimal hypokinesia of the antero-apical region as an indication for insufficient perfusion of a right diagonal branch. As the patient's complaints responded positively to  $\beta$  blocker medication he was referred to our department for cardiac computed tomography to rule out severe coronary heart disease.

Multislice cardiac computed tomography (CT, 64 slices) revealed an anomalous origin of the circumflex coronary artery from the right coronary sinus, sharing a common ostium with the right coronary artery (see panel: Ao, aorta; CX, circumflex artery; LA, left atrium; LCA, left coronary artery; PV, pulmonary vein; RA, right atrium; RCA, right coronary artery). From its origin the circumflex artery proceeded dorsal to the ascending aorta into the left atrioventricular groove. In addition CT revealed diffuse macro-angiopathy with multiple plaques and moderate to high grade stenoses involving several segments of the right and left coronary artery respectively. Coronary angiography confirmed the diagnosis.



An anomalous origin of the circumflex coronary artery from the right coronary sinus is rare and can be found in approximately 0.7% of all patients. In the absence of atherosclerosis this anomaly is considered benign. However, in selective left coronary angiography a potential pitfall is to assume an occluded or congenitally absent circumflex coronary artery as this can lead to patient mismanagement. In patients requiring cardiac surgery the anomaly should be determined in order to avoid accidental compression of the vessel.

M Weinger  
M Beer  
D Hahn  
M Beisert

weinger@roentgen.uni-wuerzburg.de