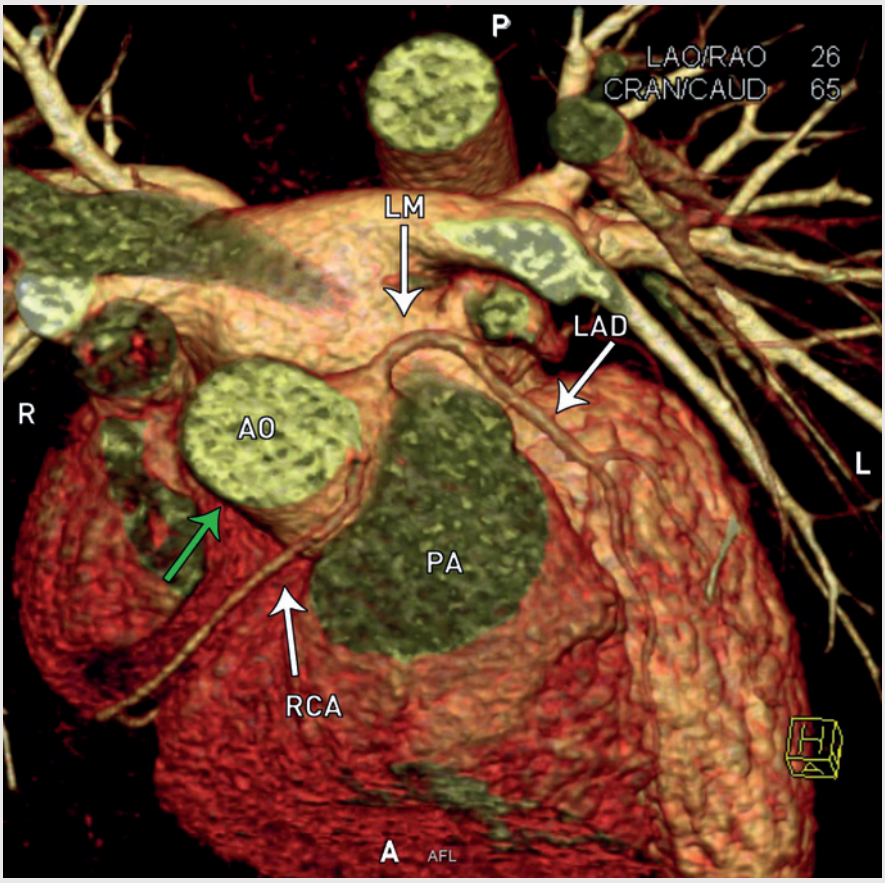
CT coronary angiography for diagnosing vascular anomalies



CT scanning of the heart is becoming increasingly common in Norway. CT coronary angiography is a non-invasive method used to diagnose and chart arteriosclerotic disease. The method also lends itself to the detection of anatomical variants such as coronary anomalies.

According to the literature, coronary artery anomalies occur in 0.2–1.2 % of the population (1). As a rule the anomalies have no clinical significance, but in very rare cases they may cause sudden cardiac death, for example amongst young athletes. Physical exertion in persons with certain types of coronary artery anomaly may induce dangerous arrhythmias and myocardial ischaemia.

The CT image is a three-dimensional reconstruction of the heart and shows one of the variants that is described as having a «malignant» course. Here the right coronary artery (RCA) originates from the left valsalva sinus with an interarterial course between the aortic root (AO) and the outlet tract of the pulmonary artery (PA) (2). The left main stem (LM) and the descending branch (left anterior descendens, LAD) are also pronounced. The green arrow indicates the usual location of the outlet of the right coronary artery.

It is postulated that during physical exertion the proximal part of the right coronary artery is squeezed between the two surrounding structures and that a slit-shaped coronary artery ostium may become narrower. In some cases with serious symptoms, the anomaly is treated surgically (3, 4).

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