

IMAGE FOCUS

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Anomalous origin of the left coronary artery from the right sinus of Valsalva: two abnormal courses in one patient

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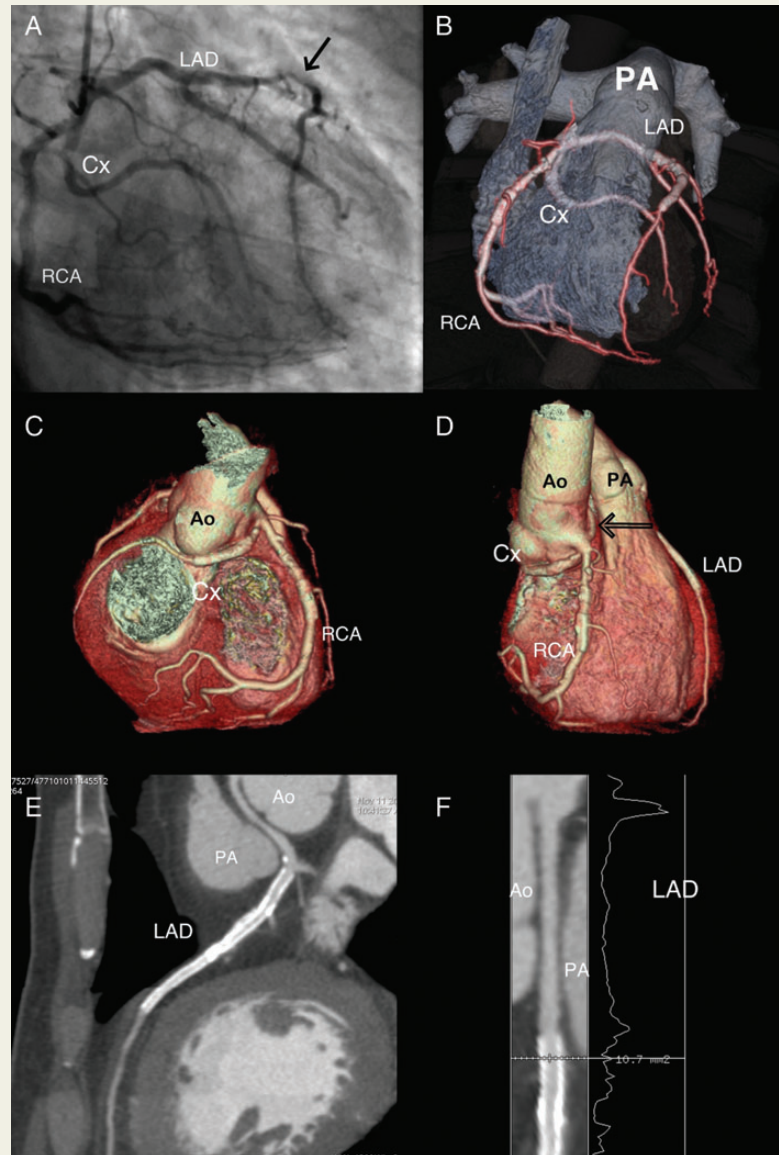
A 47-year-old man previously asymptomatic was admitted to our hospital with an anterior myocardial infarction. Coronary angiography revealed a single coronary ostium at the right sinus of Valsalva (see Supplementary data online, *Video S1*). Severe stenosis of the mid left anterior descending artery (LAD) (arrow in *Panel A*) and lesions on the other arteries were successfully revascularized with drug-eluting stents.

Computed tomography coronary angiography (CTCA) confirmed that the left coronary artery originated from the right sinus of Valsalva, a finding known as anomalous coronary artery from the opposite sinus (ACAOS). A very uncommon variant was identified: the LAD presented an anomalous pre-aortic course between the aorta (Ao) and pulmonary artery (PA), known as intramural or interarterial course (*Panels E and F*, arrow in *Panel D*), while the circumflex artery (Cx) presented an anomalous retroaortic course (*Panel C*); the right coronary artery (RCA) had no course anomalies.

Luminal compression of the LAD's intramural segment was not detected in the systolic reconstructions of the CT (*Panels E and F*). The treated lesions were distal to the anomalous courses.

Surgical correction was recommended, but the patient rejected it. At 6-month follow-up, the patient remained asymptomatic, without evidence of ischaemia or arrhythmias.

ACAOS is often associated with early atherosclerosis and—mainly the interarterial course—sudden cardiac death after vigorous exercise. The accepted treatment for this variant is surgery. The coexistence of two different abnormal courses (retroaortic and interarterial) in the same patient is very uncommon.



Supplementary data are available at *European Heart Journal—Cardiovascular Imaging* online.

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