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IMAGE FOCUS

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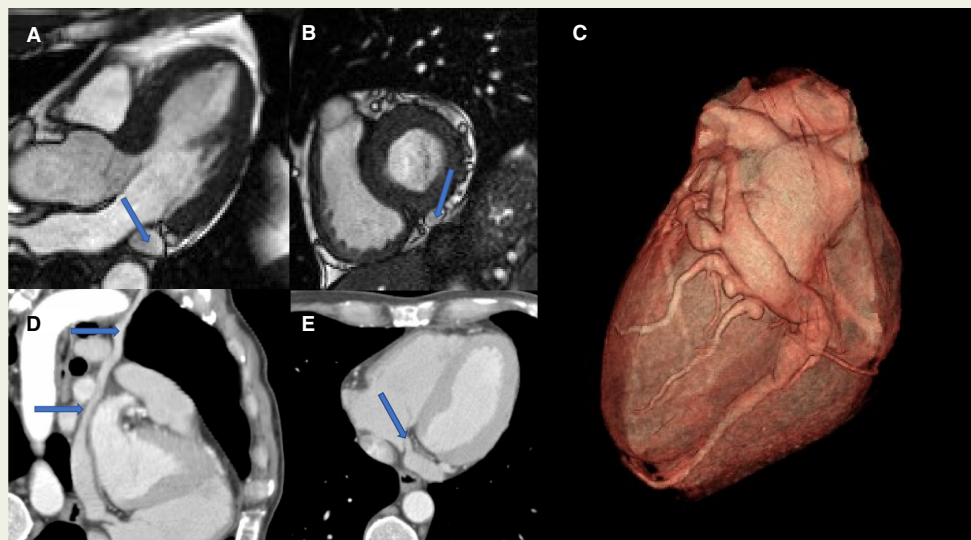
Varicose cardiac veins in a case of persistent left superior vena cava and stenosis of the coronary sinus ostium

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A 53-year-old asymptomatic male patient was referred to our hospital with nonspecific electrocardiogram-changes (insignificant ST-depression in leads V4–V6) to exclude obstructive coronary artery disease. Myocardial ischaemia and scarring could be ruled-out by adenosine stress cardiac magnetic resonance imaging, but a dilatation of the middle posterior cardiac vein as well as the coronary sinus (CS) were noticed incidentally (Panel A, arrow points to dilated CS; Panel B, arrow points to dilated middle posterior vein).



We therefore performed consecutive cardiac computed tomography which revealed extensively varicose cardiac veins (Panel C; [Supplementary data online, Video S1](#)) and persistence of the left superior vena cava (PLSVC) (Panel D). While the maximum diameter of the CS was 15 mm, the CS ostium showed some degree of stenosis (diameter 4 mm × 3 mm) (Panel E, arrow points at stenotic CS ostium).

PLSVC is estimated to be present in about 0.3% of the general population, usually causing some degree of CS dilatation. As long as the PLSVC drains into a roofed CS, it does not cause any short circuit. In our case, the PLSVC originates from the left subclavian vein and drains into the CS. Anyhow, the presence of an PLSVC alone would not explain the extensively dilated coronary veins. Our patient also showed a stenotic CS ostium, which we think together with the PLSVC causes reperfusion on the coronary veins and therefore causes their varicose appearance.

[Supplementary data](#) are available at *European Heart Journal - Cardiovascular Imaging* online.