Unroofed coronary sinus: multi-modality evaluation

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Unroofed coronary sinus: multi-modality evaluation

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A 61-year-old man was referred for mild exercise intolerance. He had a previous history of chronic obstructive pulmonary disease, arterial hypertension and was an ex-smoker. Physical examination revealed a systolic murmur and his electrocardiogram showed sinus rhythm and an incomplete right bundle-branch block. A transthoracic echocardiogram was performed and showed mild left ventricular hypertrophy, mild rheumatic mitro-aortic disease, left atrial (LA) enlargement and dilated right ventricle (figure 1 A-D), dilated coronary sinus (CS) (panel A, small arrow) and a prominent CS flux into right atria (RA) (panel C, D, large arrow). Transoesophageal echocardiography revealed a communication between the LA and the RA through a dilated coronary sinus (panel E, large arrow). A cardiac computed tomography confirmed the diagnosis of an unroofed coronary sinus showing the shunt between LA and RA through a dilated CS (panel F, large arrow).

Unroofed CS is one of the rarest types of atrial septal defect. It is classified into four different types, with our patient presenting a type 2 case with unroofed CS without persistent left superior vena cava. Although rare, this condition should be considered in the evaluation of a right-sided heart enlargement and management guided by the presence of clinical symptoms or cardiomegaly with surgical repair being the treatment of choice. The patient was symptomatic and the calculated echocardiographic ratio of total pulmonary blood flow to total systemic blood flow was 1.6, meaning a moderate shunt, but the patient refused surgical correction.

CONFLICT OF INTEREST

The authors declare to have no conflict of interest.
Fig. 1