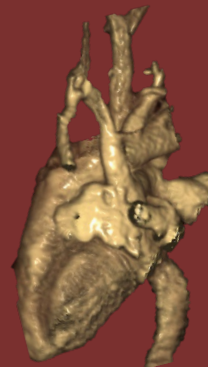
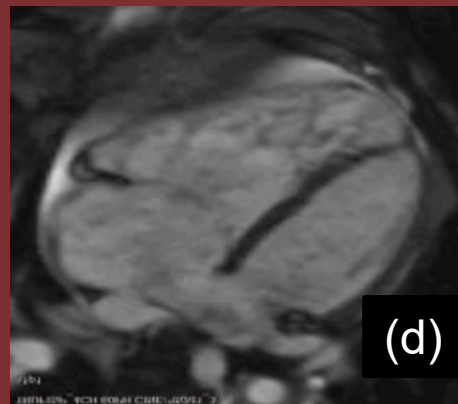
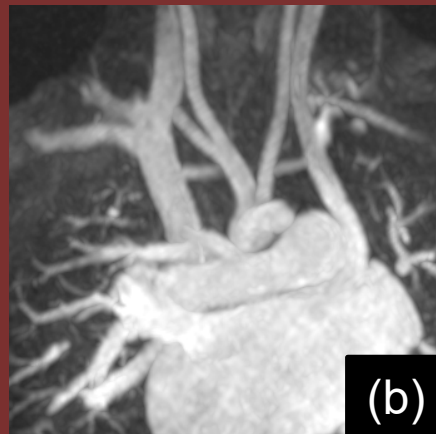
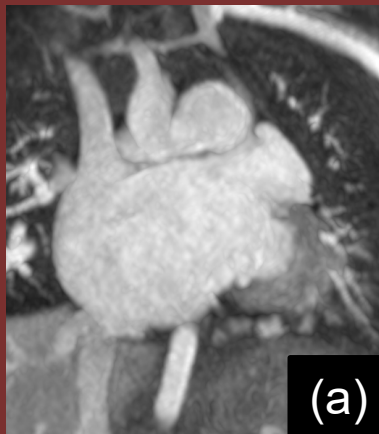


NORTH AMERICAN SOCIETY FOR
CARDIOVASCULAR IMAGING

4 year-old boy with dilated right heart chambers
on echocardiogram



MRA coronal (a & b), axial MRA at the level of coronary sinus (c), 4 chamber bSSFP cine (d) and VR_MRA (e)

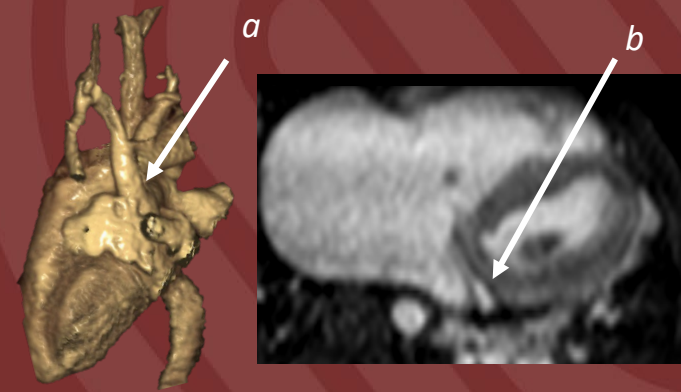
DIAGNOSIS: Persistent Left SVC With Complete Unroofing Of The Coronary Sinus And Large Secundum ASD.

Overall L-R shunt, Qp:Qs by CMR was = 2.6:1 with dilated right heart chambers and function tricuspid regurgitation.

TEACHING POINTS

Imaging clues of complete unroofing of the Coronary Sinus (CS) include:

- a. Left SVC joins Left Atrium (LA) in the angle between the LA appendage and Left upper pulmonary vein.*
- b. The CS is not dilated.*



1. CS Unroofing can be partial or complete (in this case).
2. CS Unroofing is often associated with other congenital cardiac anomalies. (Large ASD in our case – seen in 4chamber cine (d)).
3. Presentation could include cerebral emboli/cerebral abscesses due to right to left shunting and must be suspected in patients with reduced systemic arterial oxygen saturation with no other right – left shunt.

Author: Romina D'Souza, Institution : Sickkids, Toronto

Ref: Zhi AH et al. CT angiography for diagnosis and subcategorization of unroofed coronary sinus syndrome. J Thorac Dis. 2017 Oct;9(10):3946-3955