Comment on: Dual LAD with anomalous origin of long LAD from right coronary sinus: A variant of type VI LAD

Sir,

We read with great interest the article by Vohra *et al*. published in May 2016 issue of IJRI.[1] We congratulate the authors on reporting an extremely rare variant of dual left anterior descending artery (LAD). We would also like to report an interesting variant of dual LAD, which we recently diagnosed in a patient.

A 50-year-old gentleman was referred to our department for computed tomography (CT) coronary angiography with complaints of pain on the left side of the chest and cold sweats since 4 days. CT coronary angiography, done on a 64-slice CT (Somatom Sensation-64, Erlangen, Germany), showed evidence of dual LAD. The short LAD was arising from the left main coronary artery and coursing in the proximal anterior interventricular groove and terminated after giving a large septal and one large diagonal branch. The long LAD was found arising from the right coronary sinus in close proximity to the right coronary artery (RCA) ostium [Video 1]. It showed epicardial course between the aortic root and right ventricular outflow tract (RVOT) and reached the mid anterior interventricular groove [Figures 1 and 2]. No significant disease was noted in either LAD; however, severe plaque-induced narrowing was found in the large diagonal arising from short LAD.

Dual LAD were first classified into four types by Spindola-Franco *et al*.,[2] however, many other variants of dual LAD have been added since then. A recent article by Celik *et al*. mentioned ten types of dual LAD.[3] Our case does not fit exactly in any of the described types, however, it is similar to the one described as type VI LAD which was reported by Maroney and Klein,[4] in which the long LAD arises from the RCA and shows an interarterial course between the aortic root and RVOT. However, our case is different from the classic type VI LAD as in our case the long LAD was arising from the right coronary sinus and not

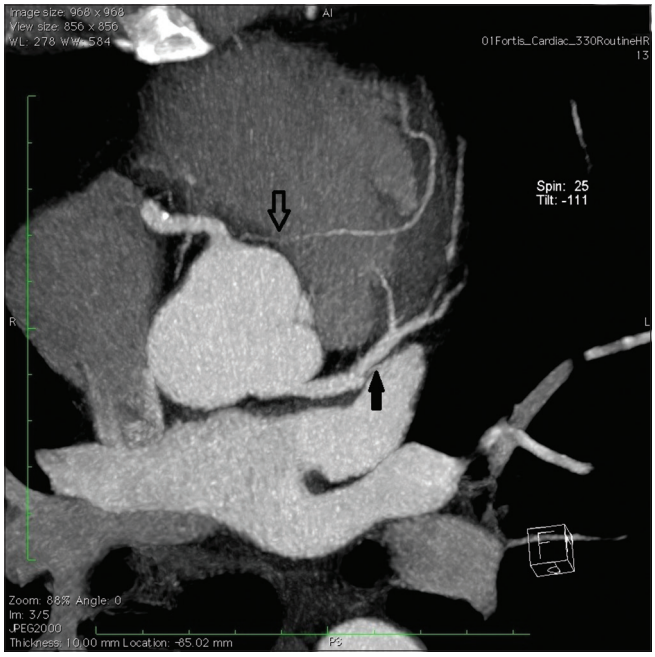

Figure 1: Oblique maximum intensity projection (MIP) CT Coronary Angiography image shows the short LAD (bold arrow) arising from the left main coronary artery and terminating in the proximal anterior interventricular groove. The long LAD (open arrow) arising from the right coronary sinus adjacent to the RCA ostium and coursing between the RVOT and aortic root

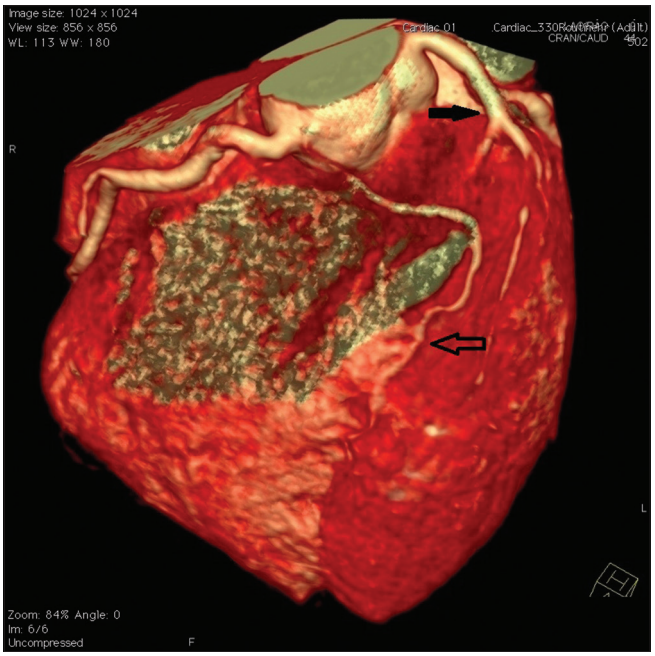

Figure 2: Three dimensional volume rendered (VRT) CT Coronary Angiography image shows the long LAD (open arrow) arising from the right coronary sinus and entering the mid anterior interventricular groove. The short LAD from left main coronary artery is terminating (bold arrow) after giving large diagonal and septal branches.

from the RCA, as noted in their case. Hence, this variant of LAD can be classified as type VIa LAD where the long LAD arises from the right coronary sinus and shows an interarterial course between the aortic root and RVOT. We could find only one previously described case of similar type of dual LAD.[5]

Our case adds to the database of ever increasing types of dual LAD and emphasizes the need for carefully outlining the course and number of LAD on CT coronary angiograms so that significant anomalies are not missed.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Abhishek Prasad, Shradha Sinha[1], Rahat Brar, Shaleen Rana

Department of Radiology, Fortis Hospital, [1]Intensive Care, Max Hospital, Mohali, Punjab, India
E-mail: drabhishekprasad@gmail.com

References

1. Vohra A, Narula H. Dual left anterior descending artery with anomalous origin of long LAD from pulmonary artery - rare coronary anomaly detected on computed tomography coronary angiography. Indian J Radiol Imaging 2016;26:201-5.
2. Spindola-Franco H, Grose R, Solomon N. Dual left anterior descending coronary artery: Angiographic description of important variants and surgical implications. Am Heart J 1983;105:445-55.
3. Celik T, Bozlar U, Ozturk C, Balta S, Verim S, Demir M, *et al*. A new anomaly of the left anterior descending artery: Type X dual LAD. Indian Heart J 2015;67:14-7.
4. Maroney J, Klein LW. Report of a new anomaly of the left anterior descending artery: Type VI dual LAD. Catheter Cardiovasc Interv 2012;80:62-69.
5. Deora S, Kumar T, Shah S, Patel T. Reporting a novel variant of type VI dual left anterior descending artery: A rare coronary anomaly. BMJ Case Reports 2015;2015. pii: Bcr2015211128.

Video Available on: www.ijri.org

Access this article online

Quick Response Code:

Website: www.ijri.org

DOI: 10.4103/ijri.IJRI_369_16

Cite this article as: Prasad A, Sinha S, Brar R, Rana S. Comment on: Dual LAD with anomalous origin of long LAD from right coronary sinus: A variant of type VI LAD. Indian J Radiol Imaging 2017;27:362-3.