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Case Report

Anomalous twin circumflex artery in a 47-year-old Indian female

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ARTICLE INFO

Article history:
Received 14 August 2015
Accepted 29 September 2015
Available online 18 December 2015

Keywords:
Twin
Circumflex
Anomalous

ABSTRACT

Anomalous origin of circumflex coronary is not an uncommon finding. However, dual origin of circumflex artery is a rare anomaly. An extensive literature search indicates that there have been only three such prior reports. We report the first such case from the Indian subcontinent. This was diagnosed by conventional angiography and CT angiography.

A 47-year-old Indian perimenopausal woman presented with exertional angina NYHA class II and exertional dyspnea NYHA class II for 1 month with occasional palpitation and easy fatiguability. Her physical examination was normal. ECG showed low voltage complexes in inferior leads and flat T waves in aVL, V2, and V3. Exercise stress testing was positive for inducible ischemia. An echocardiogram showed normal systolic function and grade I diastolic dysfunction. Coronary angiogram was performed which revealed twin circumflex arteries. LMCA normally bifurcated into LAD and LCX. LCX arising from left coronary system was normal. Anomalous non-dominant circumflex artery arising from RCA had 40–50% stenosis in its proximal segment. Both LAD and proximal RCA also had atherosclerotic lesions. The two circumflex arteries were also evaluated by coronary CT angiography. LCX from RCA had a retroaortic course to the LV. In view of significant stenosis in LAD, PCI to LAD with sirolimus drug eluting stent was performed successfully. There have been only a few case reports on twin circumflex arteries. In 2008, Attar et al. reported a case of twin circumflex arteries in a 62-year-old Caucasian male, one from left main and the other from the right coronary sinus.[1] Kanber et al. in 2010 reported a case of twin circumflex which presented with acute IWMI. Chiranjivi Potu et al. in 2011 reported twin circumflex with dominant

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http://dx.doi.org/10.1016/j.ihj.2015.09.037

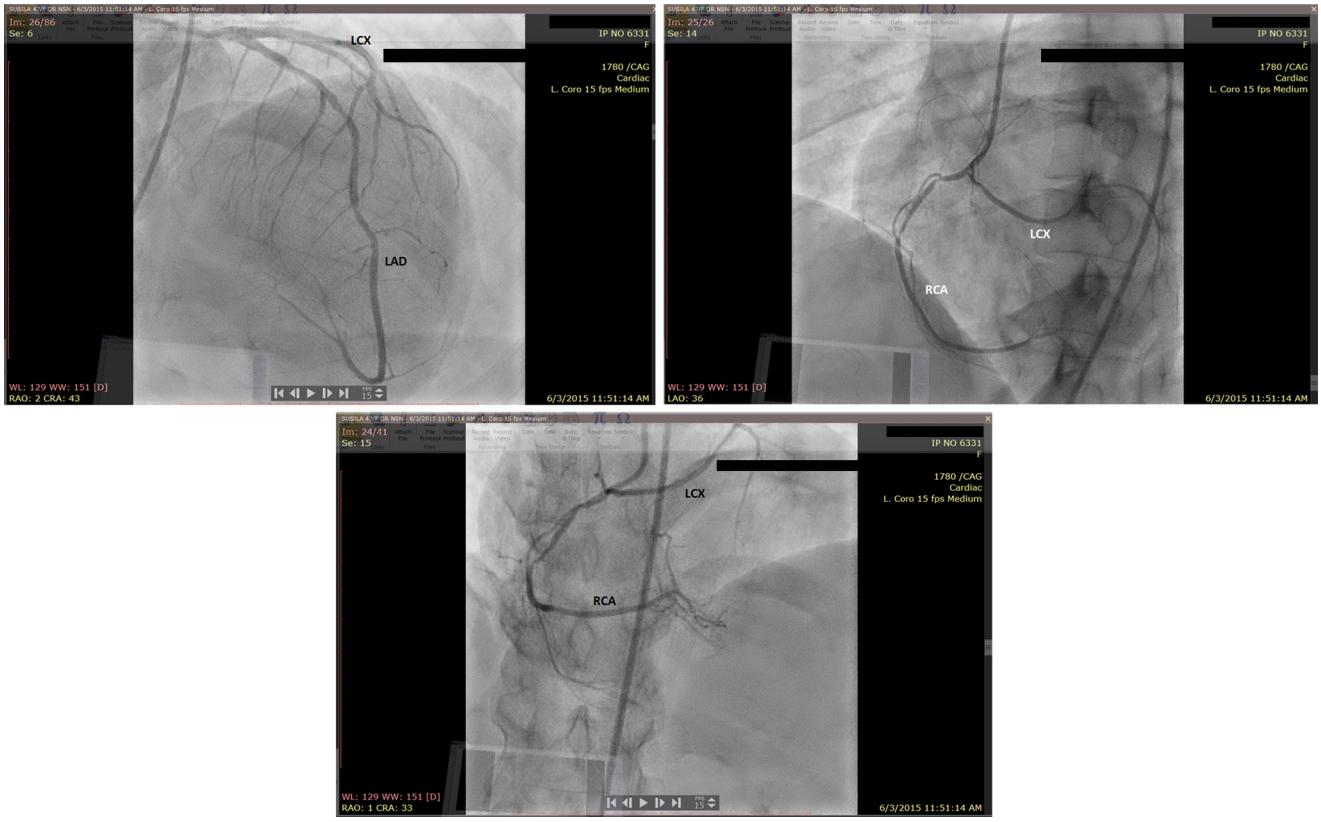

Fig. 1 – Coronary angiogram showing (a) significant LAD stenosis in AP cranial view, (b) anomalous LCX arising from RCA in LAO view, (c) anomalous LCX arising from RCA.

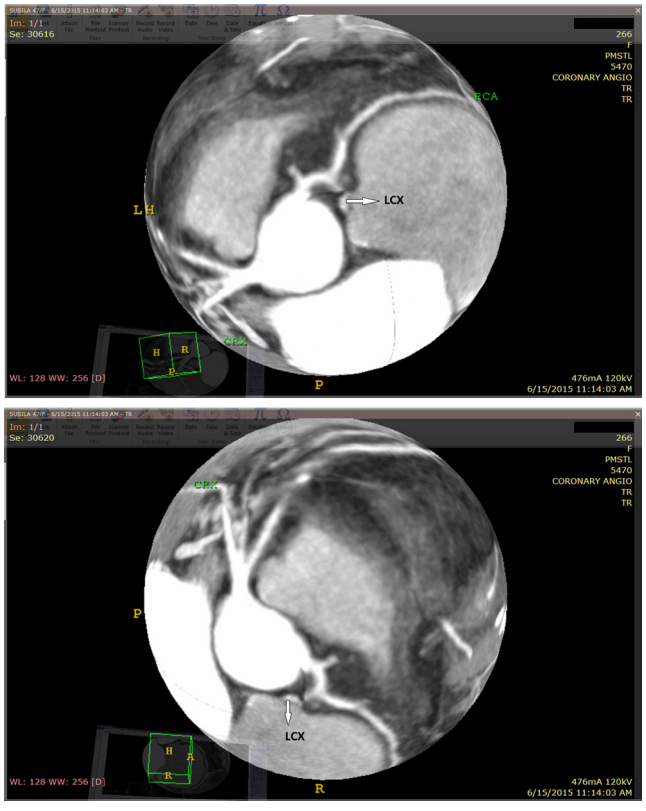

Fig. 2 – CT angiography showing origin of LCX from RCA.

anomalous circumflex.[2] We describe a fourth such case, probably the first from the Indian subcontinent. In cases where the anomalous circumflex originates from either the RCA or the RCS, its course is always retroaortic. Although a benign anomaly, it is important to inform the surgeons so as to avoid accidentally cross-clamping or transecting the artery during surgery (Figs. 1 and 2).

Conflicts of interest

The authors have none to declare.

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