

Dual Left Circumflex Artery

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1. Case Report

Dual Left Circumflex arteries (LCx) represent a very rare congenital anomaly with only few reported cases in literature. Herein, we present a case of dual LCx arteries originating from the left main and right coronary arteries, respectively.

A 40-year-old male presented in emergency department with complain of chest pain. On examination, his pulse rate was 90 beats per minute, blood pressure 120/70 mmHg. Electrocardiogram showed ST depression in inferior leads. Cardiac markers CPK MB and troponin I were within normal limits. Echocardiography revealed hypokinetic inferolateral wall. Elective coronary angiography was then planned, which showed twin LCx arteries: one originating from left main artery and the other from the proximal RCA (Figure 1,2). Patient was discharged on optimal medical therapy and he remained asymptomatic in follow up period.

Coronary anomalies are rare. The most frequently found anomalies include a LCx artery with a separate origin of the LAD, followed by a LCx artery arising from the right sinus of Valsalva or the RCA [1]. There are only a few cases of twin Cx arteries originating from both left and right coronary systems that have been reported in the literature [2-4]. It may cause chest pain, heart failure, arrhythmia, and sudden death as a consequence of the repeated compression of the anomalous artery by a dilated aortic root or of slit-like ostia or of unusual angling as a result of the retroaortic course of the LCx [5].

The clinical significance of this anomaly may be important in patients undergoing coronary intervention or cardiac surgery. It is important to inform the surgeons so as to avoid accidentally cross-clamping or transecting the artery during surgery.

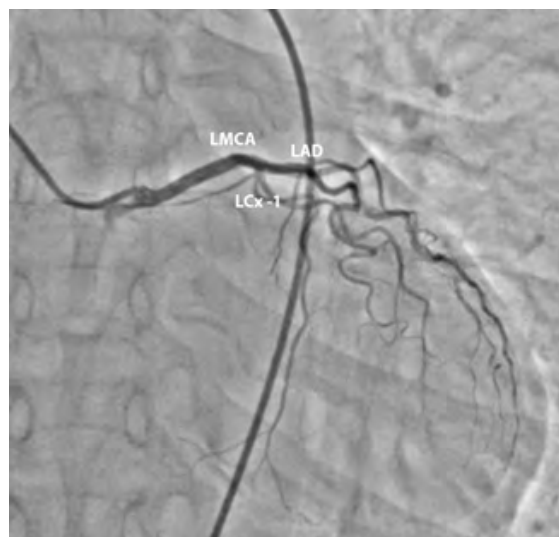


Figure 1: Left Coronary angiogram showing small, Left Circumflex artery (LCx-1) arising from Left main coronary artery (LMCA).

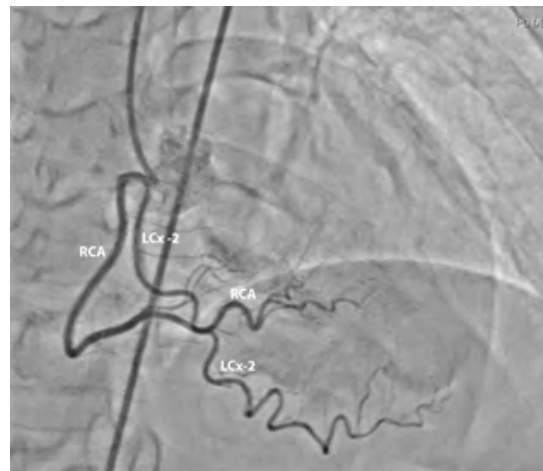


Figure 2: Right Coronary angiogram showing second Left Circumflex artery (LCx-2) arising from Right Coronary artery (RCA).

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