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Case Report

"Vieussens ring" from isolated conus artery

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A 56-year-old diabetic man was admitted with high risk unstable angina and after initial medical stabilization, he was taken up for coronary angiogram. Angiogram revealed left main diffuse 80% stenosis, left anterior descending artery (LAD) ostial total occlusion, left circumflex (LCX) ostial 90% stenosis and right coronary artery (RCA) proximal 80% stenosis. Despite multiple angiographic views the rest of LAD could not be visualized. A careful review of angiogram revealed non-visualization of conus branch of RCA. Selective cannulation of conus showed entire LAD filling through collaterals from conus (Fig. 1). The patient was subsequently referred for urgent coronary bypass surgery.

In patients with stenosis or total occlusion of the LAD or RCA, the conus artery often serves as a principal source of collateral circulation.[1] This collateral channels form the circle of Vieussens (or 'Vieussens ring'). In about 40% of population, conus branch can arise separately from right sinus and is called an isolated conus artery (ICA). ICA may be the exclusive source of collaterals to occluded LAD in about 6% of cases.[2] Under such circumstances, failure to recognize this normal variant early during angiogram may result in unnecessary prolongation of procedure and additional diagnostic modalities such as CT coronary angiogram in search of non-visualized LAD.

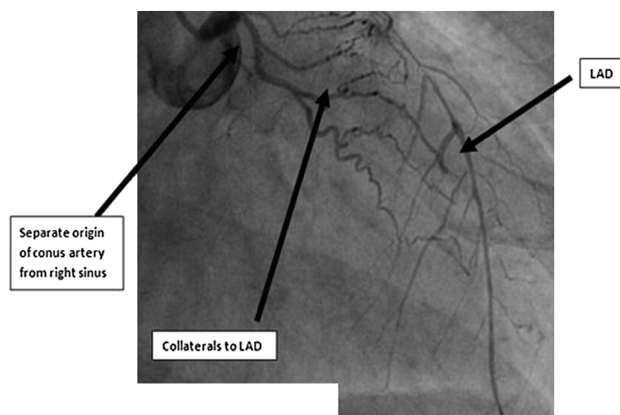

Fig. 1 – ICA collaterals to LAD.

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Conflicts of interest

All authors have none to declare.

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