A 54-year-old asymptomatic woman (M.H.S.), was referred to the Hospital das Clínicas da Universidade Federal de Minas Gerais (HC/UFMG) cardiology service for routine cardiological evaluation in 2006. The physical examination and basal ECG were normal. Exercise stress testing showed unspecific ST segment alteration, and technetium scintigraphy was normal. One year later, repeat examination showed normal basal ECG, discrete displacement of ST segment by exercise stress testing, and transient ischemic alteration in apical area by technetium perfusion imaging. Injection in the right coronary showed dilation with collateral vessels to the left coronary artery and a hypoplastic left descendent artery (Figure 1, Video 1). The anomalous origin of the left coronary artery from the left ventricle could be seen by the flow from left coronary artery to left ventricle in diastole by angiography (Figure 2, Video 2) and by multislice computed tomography (Figure 3A). Coronariography and computed tomography showed absence of left coronary aorta ostia (Figure 3B). There was no evidence of coronary disease. Coronary artery ectopic origin from ventricular cavity is a very rare condition that may cause coronary insufficiency and sudden death.1,2 To our knowledge, this is the first reported case in which the left coronary artery origins from the left ventricle.

The authors had full access to and take full responsibility for the integrity of the data. All authors have read and agree to the manuscript as written.

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Disclosures

None.

References


Figure 3. Multislice computed tomography showing the left coronary artery (LCA) origin from the left ventricle (LV) (A) and the right coronary artery (RCA) origin from the aorta (B). The absence of left coronary connection with the aorta can be seen.
Anomalous Origin of Left Coronary Artery From the Left Ventricle
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SUPPLEMENTARY MATERIAL

Video 1. Collaterals form Right Coronary Artery (RCA) to Left Coronary Artery (LCA), connected to left ventricle (LV). Observe a hypoplastic left artery descendent (LAD). Right coronary injection at left anterior oblique view.

Video 2. Right Coronary Artery (RC) dilated with collateral to Left Coronary Artery (LCA) connected with left ventricle (LV). Right Coronary injection at left anterior oblique view.