

A septal branch playing the role of a right coronary artery

A 56-year-old woman was hospitalised in our emergency department with a new onset chest pain and exertional dyspnoea. Her pain had started 3 weeks earlier and its severity had apparently aggravated. She reported to have an elevated blood pressure during the last 5 years which was controlled by Captopril 25 mg three times a day. At physical exam, her blood pressure was 135/95 mm Hg, and her heart rate and respiratory rate were 65 bpm and 15, respectively. Her cardiac exam was quite normal. Her ECG, showed a 0.05 mV ST depression on the inferior leads. She had a normal left ventricular ejection fraction on her echocardiography, and apart from a mild hypokinesia of the inferior wall, no other abnormality was reported. She had undergone an electrographic exercise stress test which was positive. She was a candidate for coronary angiography. At the left injection, a long septal branch was first noted. Subsequent views showed that the artery deviated from its usual course and ran to the right side and supplied the right coronary artery (RCA) territory (figure 1A and online supplementary movies I and II). Surprisingly, the right cusp was empty and no RCA was detected (figure 1B). Coronary anomalies occurred in 1–5% of general population and the incidence of ectopic RCA is about 0.92%.¹ We presented a rare form of coronary artery anomaly, which to our knowledge had never been reported. In the present case, the septal branch artery from the left anterior descending artery plays the role of RCA.

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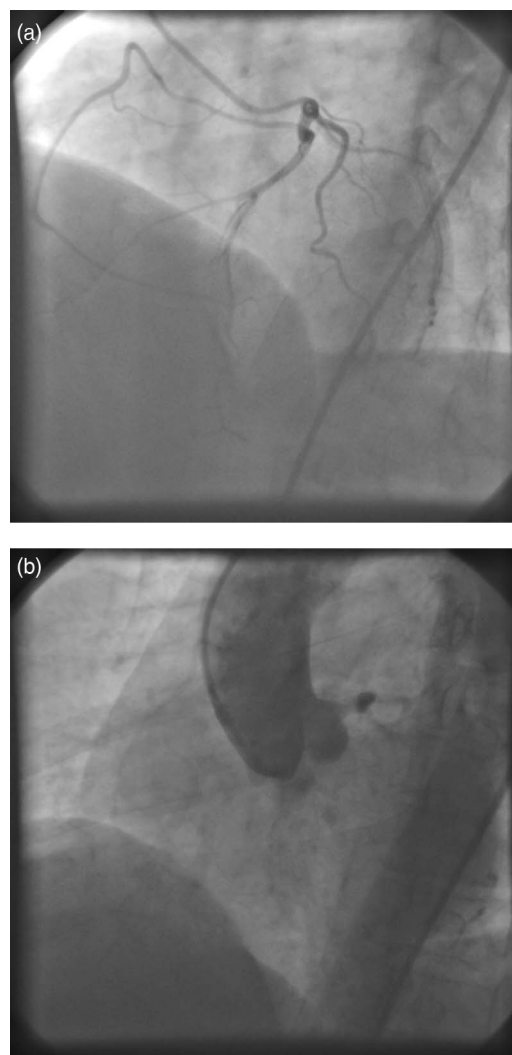


Figure 1 Selective coronary angiography. At the left injection, a large septal branch coursed to the right coronary territory on left anterior oblique projection with cranial angulation (A). No artery was detected during the aortic right cusp injection (B).

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