

Right coronary myocardial bridging: An extremely rare case

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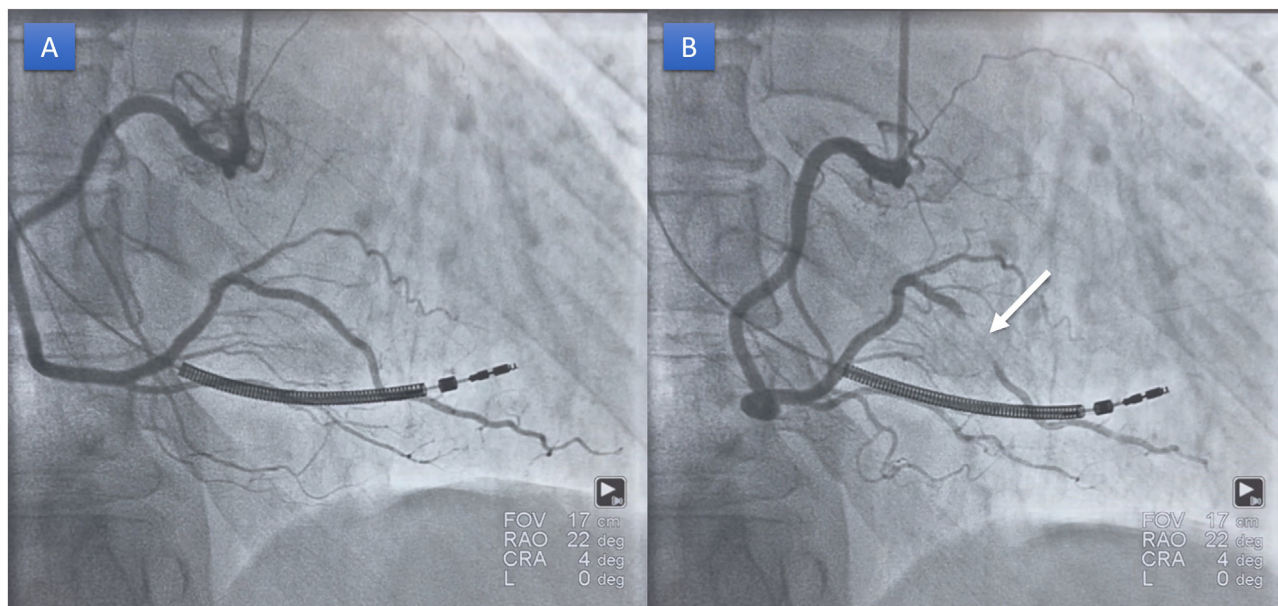


FIG. 1.

CASE PRESENTATION

A 63-year-old man, asymptomatic for typical angina, underwent coronary angiography before elective surgery repair of ascending aorta aneurysm and aortic valve insufficiency. The coronary angiography showed systolic compression of the right coronary posterolateral artery which narrowed completely during systole (Fig. 1, video 1 and 2). The patient underwent implantable cardioverter defibrillator in primary prevention due to dilated cardiomyopathy a year ago. Electrocardiogram (ECG) showed only negative T waves in V5-V6. Transthoracic echocardiography showed diffuse hypokinesia with reduced ejection fraction (34%). Relevant laboratory tests were normal.

Myocardial bridge (MB) is a congenital coronary anomaly in which the artery takes an intramyocardial course with an incidence ranging from 0.5 to 12.5% in coronary angiography series.^{1,2} The left anterior descending artery (LAD) is most commonly involved in MB (40-90%), whereby the right coronary artery is rarely involved (2.8%). The presented issue shows a rare case of right coronary posterolateral branch MB. Patients may present with atypical or angina-like chest pain with no

consistent association between symptom severity and the length or depth of the tunneled segment or the degree of systolic compression. MB could be associated with myocardial infarction, paroxysmal atrioventricular (AV) block, as well as ventricular tachycardia and sudden cardiac death. However, considering the prevalence of MB, these complications are extremely rare.³ Long-term prognosis in patients with isolated MB is generally favorable. However, MB of LAD is associated with a worse prognosis. Management of symptomatic cases includes medical therapy up to percutaneous or surgical intervention. Beta-blockers are the suggested medical treatment as they act by prolonging the diastolic time and decreasing contraction of the myocardium.

CONFLICT OF INTEREST

The Authors declares that there is no conflict of interest.

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SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.amjms.2022.12.021>.

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