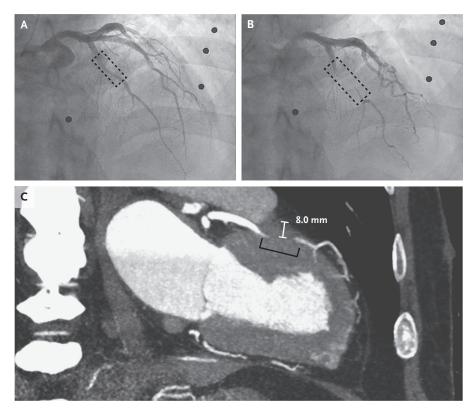
IMAGES IN CLINICAL MEDICINE

Stephanie V. Sherman, M.D., Editor

Myocardial Bridging



66-YEAR-OLD MAN WITH A HISTORY OF HYPERTENSION, DIABETES MELlitus, and ischemic stroke was transferred to a tertiary hospital after a cardiac arrest. For 6 months before presentation, he had had recurrent exertional angina but had not sought evaluation. On the morning of the cardiac arrest, he had woken with chest pain, lost consciousness, and regained consciousness after brief cardiopulmonary resuscitation by his family. On transfer to the tertiary hospital, findings from a physical examination and a transthoracic echocardiogram were normal. Coronary angiography revealed 50% stenosis in the middle left anterior descending (LAD) coronary artery during diastole (Panel A, dashed box) with complete occlusion during systole (Panel B, dashed box) and sluggish distal flow (see video). A diagnosis of myocardial bridging was made. Myocardial bridging is a coronary anomaly in which an epicardial coronary artery takes an intramuscular course. The condition is congenital but may not result in symptoms until later in life when concurrent left ventricular hypertrophy, coronary microvascular disease, or intraluminal stenosis develops from atherosclerosis. Coronary computed tomographic angiography that was performed for surgical planning showed an 8-mm depth of the middle LAD coronary artery in the myocardium (Panel C, bracket). Coronary-artery bypass surgery was performed with a saphenous vein graft. The patient recovered well and had no recurrence of symptoms.

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