A 64-year-old woman presented with typical angina during exercise for 2 weeks. An exercise treadmill test provoked similar chest pain and showed abnormal ST segments suggestive of myocardial ischemia during peak exercise. A prospectively ECG-triggered adaptive dual-source coronary computed tomography angiography ruled out coronary artery disease. Instead it demonstrated a nonenhanced clover-like structure attached to the left coronary cusp of the aortic valve with a close relation to the left coronary sinus (Figure, A). Subsequent transthoracic and transesophageal echocardiography confirmed a very mobile mass with a stalk-like attachment to the cusp (Figure, B and Movie I in the online-only Data Supplement). A papillary fibroelastoma was considered highly likely, and urgent minimal invasive surgical removal of the tumor was performed to prevent thrombi-embolic complications and direct mechanical obstruction (Figure, C). Histopathologic examination proved the diagnosis of papillary fibroelastoma (Figure, D). After surgery, the patient was free of symptoms and remains so to date. This case illustrates that chest pain has a broad differential diagnosis including nonatherosclerotic coronary myocardial disease. Noninvasive imaging might clarify the underlying etiology in patients with chest pain.

Disclosures

None.

Figure. A, Computed tomography angiography image reconstructed in the left ventricular outflow tract plane shows a nonenhanced tumor (arrow) attached to the aortic valve. B, A heavily mobile mass (arrow) was found on a transesophageal echocardiogram. C, Photograph taken periprocedurally just before removal of the tumor. It demonstrates the close relation of the tumor (arrow) with the coronary ostium (asterisk). D, Microscopy imaging confirming the diagnosis papillary fibroelastoma.
An Uncommon Cause of Typical Cardiac Chest Pain
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Movie Legend

Movie 1. 3D Transesophageal Echocardiography real-time image and multiplanar reconstructions of the aortic valve in a patient with a papillary fibroelastoma. Note the heavily mobile mass attached to the valve near the origin of the left coronary artery. Best viewed with Windows Media Player.