In a 42-year-old woman presenting with intermittent atypical angina, transthoracic echocardiography revealed a tumor of the left posterolateral ventricular wall (Movie I in the online-only Data Supplement and Figure 1). The patient was referred for cardiovascular magnetic resonance imaging. Left ventricular ejection fraction was calculated at 72%. Cardiovascular magnetic resonance revealed an irregular, intramyocardial cystic lesion that measured 2x3 cm. The lesion did not show any contrast enhancement and was located in the posterolateral wall of the left ventricle between the 2 papillary muscles of the mitral valve (movie file 2 and Figure 2). The diagnostic workup was completed by a computed tomography coronary angiography, which confirmed an intramyocardial, irregular lesion underlying the obtuse marginal branch of the circumflex artery (Figure 3a and 3b). The imaging findings of a cystic tumor with blunt indentations into adjacent myocardial structures and the clinical presentation culminated in a consensus to surgically excise the tumor. The lesion was successfully resected under support of extracorporeal circulation. Surgery exposed a lesion with a very thin-walled subendocardial layer and a mucous core (Figure 4). It could be excised in toto. Postoperative histology revealed the very rare case of an intramyocardial bronchogenic cyst.1–4 Microscopically, the tumor consisted of a thin-walled cyst attached to the resected myocardium. The inner cavity was lined by ciliated respiratory epithelium, which is the characteristic feature of a bronchogenic cyst (Figure 5). The patient recovered very well from surgery and was discharged a few days later.

Disclosures

None.

References

Figure 1. Echocardiography revealing a tumor in the left posterolateral ventricular wall on a long-axis 4-chamber view.

Figure 2. Cardiovascular magnetic resonance short-axis view shows an irregular, intramyocardial cyst (C) located between the 2 papillary muscles of the left ventricular (LV) wall.

Figure 3. Images generated with multidetector-row computed tomography. Short-axis (a) and long-axis (b) views display the relation of the circumflex artery (CA) to the intramyocardial cyst (C). LV indicates left ventricle.
Figure 4. Intraoperative exposure of the cystic mass. After cardiac arrest, an epicardial incision is placed above the location of the cystic mass.

Figure 5. Hematoxylin and eosin–stained photomicrograph showing the cyst adjacent to the myocardium (MC) and lined by ciliated respiratory epithelium (RE). Inset was obtained at a higher magnification of the area marked with a rectangle.
Left Ventricular Bronchogenic Cyst
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