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**Clinical Vignette**

**Left ventricular congenital subvalvular aneurysm**

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A few days after arrival in Italy from Ghana, a 20-year-old black male presented with a history of fever, headache, nausea, vomiting, and atypical chest pain. Clinical neurological evaluation, brain MNR, and cerebrospinal fluid analysis were negative for CNS disease. ECG showed normal sinus rhythm with non-specific ST-T abnormalities (Panel A). Owing to the presence of chest pain, fever and ECG abnormalities, an echocardiogram was scheduled to rule-out pericardial effusion. Echocardiogram revealed a large subvalvular aneurysm arising below the posterior mitral leaflet (Panel B). On 64-slice CT scan of the heart (Panel C), normal coronary arteries and a large posterior aneurism communicating with the main left ventricular cavity were observed. The patient had a successful surgical ventriculoplasty (Panel D): the neck of the aneurysm was sutured and the aneurysmal tissue was utilized to reinforce the contiguous healthy ventricular wall.

Subvalvular aneurysm is a peculiar form of left ventricular aneurysm thought to be caused by a congenital defect in the posterior portion of the mitral annulus and occurring almost exclusively in black Africans. Clinical presentation may include symptoms through diastolic overload (by virtue of its volume or by causing mitral annulus distortion and valve incompetence), thromboembolism, arrhythmias, compression of the left circumflex artery, and aneurysm rupture. Immediate surgical treatment should be considered in these patients to prevent major events.

Panel A. 12-lead ECG showing sinus rhythm with non-specific ST-T abnormalities. Panel B. 2D echocardiogram (apical long-axis view). Arrow indicates a large left ventricular aneurysm of the posterior wall arising in the region between the mitral valve annulus and the posterior papillary muscle. LV, left ventricle; LA, left atrium. Panel C. Volume rendering CT scan of the heart. Arrow indicates the left ventricular postero basal aneurysm. Panel D. Direct visualization of the left ventricular aneurysm before surgical resection.

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