Perforated aneurysm of the anterior mitral valve. A rare cause of severe mitral regurgitation

Anévrisme perforé de la valve mitrale antérieure. Une cause rare d’insuffisance mitrale sévère

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A 42-year-old man with a 2-month history of low-grade fever treated with antibiotics, fatigue and asthenia was admitted to our hospital because of left heart failure and a pan-systolic murmur audible in the mitral area. The patient had anaemia (8.3 g/dL), with an elevated erythrocyte sedimentation rate (54 mm/h) and leucocytosis (15,000/mm³). Subsequent blood cultures were negative but blood serology could not be performed. Transthoracic and transoesophageal echocardiography demonstrated severe aortic regurgitation (Fig. 1) and an anterior mitral valve leaflet aneurysm with associated leaflet perforation (Fig. 2). Doppler examination revealed severe mitral regurgitation across the mitral valve aneurysm. The site of anterior mitral valve leaflet perforation corresponded to the point of impact of the aortic regurgitation jet on the leaflet. The aortic valve was thickened but no signs of endocarditis were found. A computed tomography scan could not be performed for technical reasons. The patient refused surgery for religious reasons.
Figure 1. Severe aortic regurgitation, showing the impact of the jet on the anterior mitral valve leaflet.

Figure 2. Anterior mitral valve leaflet aneurysm with associated leaflet perforation.

As the patient had a prolonged fever of undetermined origin, anaemia and leucocytosis, the perforation of the mitral anterior leaflet must at least be considered to be due to an infection, although the blood cultures were negative. The primary lesion was the aortic regurgitation, with secondary involvement of the mitral valve and probable endocarditis.

Conflict of interest

None.