Dehiscence of mitral valve annuloplasty: a three-dimensional diagnosis

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A 74-year old patient underwent aortic valve replacement and mitral annuloplasty (Edwards Lifesciences Physioring, 34 mm). Five weeks post-surgery, he was readmitted because of heart failure due to a severe residual mitral regurgitation. Three-dimensional (3D) echocardiography clearly demonstrated the posterolateral area of dehiscence. He underwent successful surgical re-fixation (Fig. 1 and Supplementary Video 1).

Supplementary material (Video 1) is available at EJCTS online.

Video 1: 3D Moving images of the mitral valve from the left atrium demonstrating a large dehiscence of the annuloplasty on the posterolateral side, the stitches are clearly visible.

Figure 1: (A) A two-dimensional mid-oesophageal long-axis view demonstrating a dehiscence of the mitral annuloplasty ring on the posterior side. (B) Image showing an eccentric regurgitation jet in the posterior direction. (C) A 3D image view on the mitral valve from the left atrium demonstrating a large dehiscence of the annuloplasty on the posterolateral side; the stitches are clearly visible.