A 76-year-old woman with degenerative mitral valve disease was referred for refractory heart failure. An echocardiogram showed the presence of a massive mitral annular calcification with severe stenosis (mitral valve area, 1.0 cm$^2$; mean gradient, 11 mm Hg) and a small left ventricular cavity with a 23-mm septal bulge without obstruction (Figures 1A to 1C). Computed tomography (CT) findings were almost circumferential calcification of the mitral annulus; mitral annulus diameter of 22.8 x 30.0 mm and area of 472 mm$^2$, and mitral annulus-aorta angle of 122° (Figures 1D to 1F).

The heart team recommended a transcatheter mitral valve replacement (TMVR). The procedure was performed via the transseptal approach using a 26-mm SAPIEN 3 valve (Edwards Lifesciences, Irvine, California) (Online Video 2). Immediately after deployment, the patient had severe hypotension requiring hemodynamic support (Figures 2A and 2B). An echocardiographic assessment showed a satisfactory function of the prosthesis (trace paraavalvular leak and a mean gradient of 5 mm Hg), which contacted the septum, leading to a severe left ventricular outflow tract (LVOT) obstruction with a maximal gradient of 100 mm Hg (Online Video 2), confirmed by hemodynamic measurements (Figure 2B). Bail-out septal alcohol ablation was performed (Figures 3A to 3C) with an initial restoration of systemic pressure and a marked decrease in LVOT gradient (Figures 3D and 3E). A few hours later, a permanent pacemaker was implanted because of a secondary increase in the LVOT gradient. Thereafter, the evolution was favorable, and the patient was discharged on day 12. Six months after the procedure, the patient was in New York Heart Association functional class II. Echocardiographic and CT images confirmed an adequate prosthesis placement and function (Online Video 4) and a maximal LVOT gradient of 25 mm Hg.

Severe LVOT obstruction is life-threatening complication of TMVR. A septal bulge with a small left ventricular cavity increases the risk of this complication. Therefore, left ventricular morphology should be carefully evaluated before the procedure, and contraindication to the intervention should be considered if such features are observed. If severe LVOT obstruction occurs, bail-out alcohol septal ablation may be lifesaving.
Three- and 2-dimensional echocardiographic images showing a degenerative mitral valve with massive annular calcification (A), severe mitral stenosis (B), and a small left ventricular cavity with a septal bulge (C, Online Video 1). Three-dimensional volume-rendered computed tomography image showing roughly circumferential calcification of the mitral annulus (D), oblique reconstruction and sagittal view showing the dimensions of the mitral annulus and the mitral annulus to aorta angle (E and F).
Before implantation of the prosthesis, the aortic pressure was 111/45 mm Hg, the shape of the aortic pressure wave was normal, and there was not a significant gradient at the LVOT. Immediately after implantation of the prosthesis, the aortic pressure decreased to 78/45, the shape of the aortic pressure wave changed to a spike-and-dome pattern, and the maximal LVOT gradient was >100 mm Hg (Online Videos 2 and 3). LV = left ventricle; LVOT = left ventricular outflow tract.
**FIGURE 3** Fluoroscopy Images Showing the Different Steps of the Septal Alcohol Ablation Procedure and Hemodynamic Curves and Echocardiographic Images Showing Acute Results

(A) A coronary angiogram confirmed the presence of a septal artery suitable for alcohol ablation. Two milliliters of pure ethanol were injected in the first septal branch (B), with complete occlusion of the artery (C, white arrows). (D) Immediately after injecting the ethanol, a normalization of the shape of the aorta pressure curve and recovery of the pressure were observed. (E) Echocardiographic assessment confirmed the maximal left ventricular outflow gradient of 24 mm Hg (Online Video 4).

LV = left ventricle.

**KEY WORDS** alcohol septal ablation, left ventricular outflow obstruction, mitral annular calcification, transcatheter mitral valve implantation

**APPENDIX** For supplemental videos, please see the online version of this article.