

Reviving the old: percutaneous balloon mitral valvuloplasty

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Background: Percutaneous balloon mitral valvuloplasty (BMV) is reasonable management for inoperable patients with severe symptomatic mitral stenosis (MS) and favorable patient/anatomic characteristics¹. However, the presence of adverse features such as annular calcification is associated with unpredictable outcomes in this challenging population. Compassionate utilization of BMV in inoperable patients is increasing worldwide and represents salvage management.

Case report: A middle-aged patient with a history of stroke, diabetes, anemia, and bipolar disorder was repeatedly admitted due to severe dyspnea. Initial work-up showed a preserved left ventricular function with a severe degenerative MS (mean gradient 12-15 mmHg and area <1.1 cm²), mild commissural fusion and moderate medial annular calcification (Cormier score 3) (**Figure 1**). Right heart catheterization (RHC) showed high pulmonary artery (43 mmHg) and wedge (18 mmHg) pressures with high pulmonary vascular resistance (PVR, 8.4 WU). The patient was referred to cardiac surgery, but it was deemed as a prohibitive surgical risk. Due to refractory heart failure with multiple short-term rehospitalizations, the patient was proceeded to salvage BMV. Procedural details: The transseptal (TS) access and balloon septostomy (NyloTrack® 7x40mm) were done. Thereafter, a successful BMV procedure was performed (Edwards® 23x40mm, Z-Med® 25x40mm) (**Figure 2**). Early postprocedural echocardiogram detected better hemodynamic parameters with residual severe MS (mean gradient ~8 mmHg and area ~1.4 cm²). The patient was successfully discharged. Follow-up: Novel readmission occurred in a short

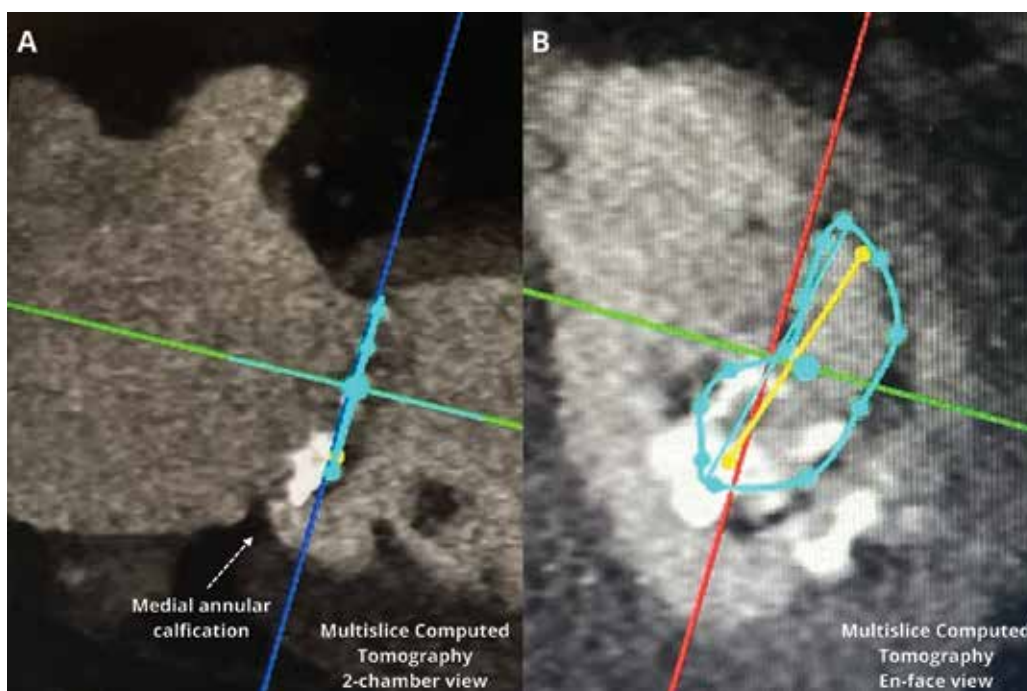


FIGURE 1. Multislice computed tomography of the mitral valve: A. 2-chamber view; B. En-face view.

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