

Timeline of the Case

Date	Events
Day 1 (Initial Presentation)	75-year-old male presented with worsening fatigue, exertional dyspnea, and palpitations. Physical examination indicated signs of heart failure, including pulmonary edema.
Day 2 (Diagnostic Workup)	Echocardiography confirmed degenerated mitral bioprosthesis with severe mitral stenosis/regurgitation, severe tricuspid regurgitation, and elevated pulmonary artery pressure. Coronary angiography and CT showed patent grafts after CABG.
Day 3 (Preoperative Planning)	Multidisciplinary team decided on a minimally invasive approach due to high surgical risk. Detailed imaging (CTA) provided annular measurements for mitral valve-in-valve procedure.
Day 5 (Procedure)	Underwent endoscopic LAA closure, transcatheter mitral valve-in-valve replacement using J-Valve system, and MC3 ring annuloplasty for tricuspid repair under hypothermia induced ventricular fibrillation. The total CPB time was 145 minutes, with the duration of hypothermic fibrillatory arrest being 65 minutes.
POD 1	Extubated with chest drainage volume of 80 ml over the first 24 hours. Normal hemodynamics and valve function observed on echocardiography.
POD 2	Chest tube removed. Patient was stable and discharged to a rehabilitation facility.
POD 5	Discharged home.
1-Year Follow-up	Patient remained symptomatically improved (NYHA class II) with complete LAA closure and normal valve function on follow-up imaging.

CABG = coronary artery bypass grafting, CT = computed tomography, POD = postoperative day, LAA= left atrial appendage.