

Takotsubo cardiomyopathy following balloon mitral valvotomy

A 61-year-old woman with severe rheumatic mitral stenosis underwent successful balloon mitral valvotomy (single inflation up to 24 mL with a 26 mL balloon; Shenzhen Shineyard Medical Device, China). One hour after the procedure, she developed severe angina. On examination, she had a varying pulse and normal blood pressure. Preprocedure ECG (figure 1A) had shown first degree atrioventricular block. During the angina attack, the ECG showed new onset atrial flutter, varying atrioventricular blocks, ST segment depression and deeply inverted T waves in leads II, III, aVF and V3–V6 (figure 1B). Transthoracic echocardiography showed a dyskinetic left ventricular apex with ballooning (white arrows in figure 1D) and a hypercontractile base (apical four chamber view: figure 1C—diastole, figure 1D—systole) (online supplementary video 1). The mitral valve orifice area was 1.71 cm² (short axis view, figure 1E). Coronary angiography revealed mild disease of the left anterior descending artery. Twenty-four hours after balloon mitral

valvotomy, left ventriculography (right anterior oblique view, using 30 mL of iohexol, 15 mL/min, 5 F pigtail catheter) showed apical dyskinesia with ballooning (black arrows in figure 1F2) and a hypercontractile base (figure 1F1—diastole, figure 1F2—systole) (online supplementary video 2). Six hours later, serum troponin I concentration was 1.5 ng/mL (normal <0.5 ng/mL). She recovered steadily. On day 7, echocardiography (online supplementary video 3) and left ventriculography showed normal ventricular contraction (figure 1F3—diastole, figure 1F4—systole) (online supplementary video 4). She was doing well at the 6 month follow-up.

Uppalakal Bijilesh, Babu Kanjirakadavath, M N Krishnan

Department of Cardiology, Government Medical College, Kozhikode, Kerala, India

Correspondence to Dr B Kanjirakadavath, Department of Cardiology, Government Medical College, NAS 30/1349, East Devgiri, Near Rahmania HSS, Medical College (PO), Kozhikode, Kerala 673008, India; drbabuk@yahoo.co.in

Contributors UB: substantial contributions to conception and design, acquisition of the data, or analysis and interpretation of the data. BK: drafting of the article or revising it critically for important intellectual content. MNK: final approval of the version to be published.

Competing interests None.

Patient consent Obtained.

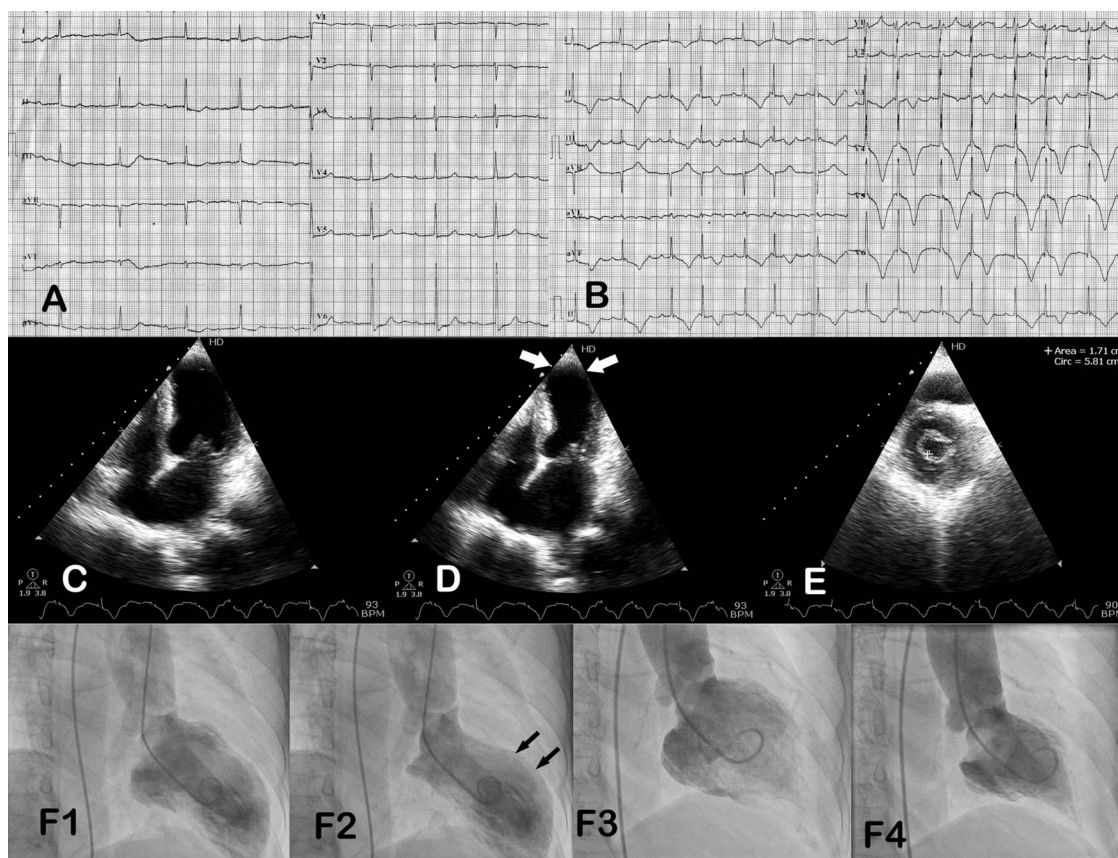


Figure 1 (A) Preprocedure ECG showing first degree atrioventricular block. (B) During angina, the ECG showed new onset atrial flutter, varying atrioventricular blocks, ST segment depression and deeply inverted T waves in leads II, III, aVF and V3–V6. (C) Transthoracic echocardiography (apical four chamber view; diastolic frame) showing a dyskinetic left ventricular apex with ballooning and hypercontractile base. (D) Transthoracic echocardiography (apical four chamber view; systolic frame) showing a dyskinetic left ventricular apex with ballooning (white arrows) and hypercontractile base. (E) Transthoracic echocardiography (short axis view). The mitral valve orifice area was 1.71 cm². (F1, F2) Twenty-four hours after balloon mitral valvotomy, left ventriculography (right anterior oblique view, using 30 mL of iohexol, 15 mL/min, 5 F pigtail catheter; F1—diastole, F2—systole) showed apical dyskinesia with ballooning (black arrows) and a hypercontractile base. (F3, F4) On day 7, left ventriculography showing normal ventricular contraction (F3—diastole, F4—systole).

Provenance and peer review Not commissioned; not externally peer reviewed.

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/heartasia-2013-010360>).

To cite Bijilesh U, Kanjirakavath B, Krishnan MN. *Heart Asia* Published Online First: [please include Day Month Year] doi:10.1136/heartasia-2013-010360
Heart Asia 2013;**0**:124–125. doi:10.1136/heartasia-2013-010360