Only patients in ivabradine demonstrated further improvement in LVESVi (73 ± 15 ml/m² to 62 ± 15 ml/m², p = 0.001), LVEDVi (103 ± 19 ml/m² to 95 ± 18 ml/m², p = 0.001), MPI (23% vs 2.7%, p = 0.001), LVEF (29 ± 3.6 to 34.5 ± 5.4%, p = 0.001) and LV Global Strain (–13.3 ± 1.6 to –20.2 ± 4.4%, p = 0.001) while those in the control group did not show any further change. Parameters like E/A, E/A VTI, MPI, E/e’ septal and E/e’ lateral showed sustained improvement at 6 months only in the ivabradine group – E/A (1.5 ± 0.5 to 1.1 ± 0.3, p = 0.001), E/A VTI (1.6 ± 0.5 to 1.1 ± 0.3, p = 0.001), E/e’ septal (11.6 ± 3.3 to 9.5 ± 2.2, p = 0.001), E/e’ lateral (11.6 ± 3.2 to 9.8 ± 2.5, p = 0.001).

On multivariate analysis, heart rate reduction was a stronger predictor of improvement in LVEF (p = 0.03) than ivabradine treatment (p = 0.5). Change in HR significantly correlated with improvement in NYHA class (r = +0.4, p = 0.01), fall in BNP levels (r = –0.4, p = 0.001), better EF (r = –0.38, p = 0.001) and reduction in global LV strain (r = +0.28, p = 0.03) at 6 months.

Conclusion: Ivabradine added to standard therapy in patients of DCM with chronic HF produces greater % change in all assessed parameters including functional class and echocardiographic parameters especially global LV strain. Ivabradine therapy was four times more likely to result in HR reduction to <70 bpm at 6 months. Heart rate manipulation with ivabradine may play an important role in the management of such patients.

Brucella myocarditis with ischemic hepatitis and acute kidney injury – A rare presentation
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A 24-year-old male patient presented with mild epigastric pain for 2 days and fever for one week. Electrocardiogram of the patient was suggestive of ventricular tachycardia with a heart rate of 200/min. Immediately, the patient was injected IV amiodarone 150 mg as bolus dose. The patient became dyspnoic and developed frank pulmonary edema after sometime and had to be managed with mechanical ventilator support. 2D echocardiography suggestive of dilated cardiomyopathy which reversed as the patient improved. The brucella IgM antibodies titres were 3.51 (positive >1.1). Dilated cardiomyopathy was caused by Brucella myocarditis which led to ventricular tachycardia on admission, cardiogenic shock with subsequent development of pulmonary edema and acute renal failure. The cardiogenic shock led to ischemic hepatitis which was possibly accentuated further by the bolus dose of amiodarone. Thus, final diagnosis of Brucella myocarditis with ischemic hepatitis and acute kidney injury was made.

Cardiac beriberi presenting as severe PAH with impending congestive heart failure in infants of poor socioeconomic background
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Introduction: Severe pulmonary artery hypertension (PAH) in infants is rare presentation without congenital heart disease (CHD). Cardiac beriberi is often a missed diagnosis and is still common. Thiamine supplements in unexplained congestive heart failure (CHF) with severe PAH in a patient from poor socio economic (SE) status may be life saving.

Materials and methods: A total of 25 infants (male 18, female 7) were found to have unexplained severe PAH during period of June 2012 to June 2015 were included. All infants were exclusively breast fed belonging to low SE strata with their mothers from predominant rice eating population. Infants with CHD were excluded. Presentation was poor feeding, excessive cry and/or respiratory distress. 2D Echo done showed severe PAH and RV dysfunction in all; 2 patients had associated pericardial and pleural effusion. Diagnosis of cardiac beriberi was made and thiamine supplement were started immediately. No other PAH medications were given.

Results: The average age of presentation was 3.5 months (range 1–6 months); weight 4.3 kg (2.6–5.5 kg). Arterial blood gas (ABG) analysis showed high lactate levels (mean 6.4, range 3.4–17 mmol/l) at presentation. Mean PA pressures were 74 mmHg (range 50–110 mmHg) at admission. The lactate levels were higher in infants less than three-month age (n = 10) when compared with older infants (n = 15) between 3-month and 6-month age group (lactate 9.6 mmol/l vs 4.2 mmol/l respectively, p < 0.05). The infants presenting before three months had severe CHF and two infants presented with acute gasping state with severe lactic acidosis requiring mechanical ventilation. The response of thiamine supplement was rapid, ABG