decreased from 126±68 ml to 157±68 ml (p<0.001). 18 (56%) patients exhibited RR. There was a significant relationship between percentage rise in LV-dP/dtmax and RR for DDDLV pacing (p<0.001) (Abstract 90 figure 2). A similar relationship for AHR and RR in DCM and ICM (p=0.01 & p=0.006) was seen.

Conclusions Acute haemodynamic response to LV pacing is useful for predicting which patients are likely to remodel in response to CRT both for DCM and ICM. There is much variation in the rise in LV-dP/dtmax depending on LV lead position. Using acute haemodynamic response measured with a pressure wire during CRT LV-dP/dtmax depending on LV lead position. CRT has not been investigated. Cardiovascular magnetic resonance (CMR) is an important tool in the assessment of HF and is considered the gold-standard in estimating RV function. We used this technique to assess the impact of RV dysfunction on clinical outcomes following CRT implantation.

Methods We evaluated 48 consecutive patients attending a heart failure pacing clinic who had a CMR study within 6 months prior to CRT implantation. Clinical, biochemical, ECG and imaging data were collected. Biventricular function and myocardial scar were assessed by CMR including gadolinium enhancement. The primary end-point was a composite of all cause mortality (ACM) or unplanned cardiovascular hospitalisation.

Results The mean age was 64.5±12.7 years. HF was ischaemic in 42% of patients, and 85% were in NYHA class III/IV at the time of implantation. Atrial fibrillation/flutter was found in 27% of patients. The mean LVEF estimated by CMR was 27±5%, while the median RVEF was 52% (IQR 35%–65%). The mean tricuspid annular plane systolic excursion (TAPSE) was 14.0±6.0 mm, and the mean pulmonary artery pressure (on echocardiography) was 37±10 mm Hg. Ten patients (21%) met the primary end-point over a mean follow-up of 28.6 months. On time-to-event analysis, only atrial fibrillation (HR 4.5, p=0.02) and RV dysfunction, ie, reduced RVEF (HR 0.96 per 1% EF, p=0.01) or TAPSE (HR 0.80 per mm, p<0.01) were independent predictors of the primary end-point. Atrial fibrillation and low RVEF were the only independent predictors of mortality (p=0.03 and 0.04, respectively).

Conclusions RV dysfunction is an independent predictor of adverse clinical outcomes following CRT. The assessment of RV function may be considered in patient selection for CRT implantation.

### Abstract 91

**RIGHT VENTRICULAR DYSFUNCTION IDENTIFIES CLINICAL OUTCOMES FOLLOWING CARDIAC RESYNCHRONISATION THERAPY**

K Guha, F Alpendurada, S Prasad, H McDonald, R Cowie, R Sharma. Royal Brompton Hospital, Imperial College, London, UK.

Background Cardiac resynchronisation therapy (CRT) is an established treatment for patients with advanced heart failure (HF). However, a proportion of patients do not derive benefit post implantation of CRT. Despite an established predictive role in HF, the significance of RV dysfunction in gauging clinical benefit from CRT has not been investigated. Cardiovascular magnetic resonance (CMR) is an important tool in the assessment of HF and is considered the gold-standard in estimating RV function. We used this technique to assess the impact of RV dysfunction on clinical outcomes following CRT implantation.

Methods We evaluated 48 consecutive patients attending a heart failure pacing clinic who had a CMR study within 6 months prior to CRT implantation. Clinical, biochemical, ECG and imaging data were collected. Biventricular function and myocardial scar were assessed by CMR including gadolinium enhancement. The primary end-point was a composite of all cause mortality (ACM) or unplanned cardiovascular hospitalisation.

Results The mean age was 64.5±12.7 years. HF was ischaemic in 42% of patients, and 85% were in NYHA class III/IV at the time of implantation. Atrial fibrillation/flutter was found in 27% of patients. The mean LVEF estimated by CMR was 27±5%, while the median RVEF was 52% (IQR 35%–65%). The mean tricuspid annular plane systolic excursion (TAPSE) was 14.0±6.0 mm, and the mean pulmonary artery pressure (on echocardiography) was 37±10 mm Hg. Ten patients (21%) met the primary end-point over a mean follow-up of 28.6 months. On time-to-event analysis, only atrial fibrillation (HR 4.5, p=0.02) and RV dysfunction, ie, reduced RVEF (HR 0.96 per 1% EF, p=0.01) or TAPSE (HR 0.80 per mm, p<0.01) were independent predictors of the primary end-point. Atrial fibrillation and low RVEF were the only independent predictors of mortality (p=0.03 and 0.04, respectively).

Conclusions RV dysfunction is an independent predictor of adverse clinical outcomes following CRT. The assessment of RV function may be considered in patient selection for CRT implantation.