**EFFICACY AND SURVIVAL IN PATIENTS WITH CARDIAC CONTRACTILITY MODULATION: LONG-TERM SINGLE CENTER EXPERIENCE IN 81 PATIENTS**

**J. Kuschyk1**, S. Roeger1, B. Rudic1, K. Stach1, C. Weiss1, T. Papavassilliu1, B. Rousso3,

D. Burkhoff4, M. Borggrefe1

1. University Medical Centre, I. Medical Department, Mannheim, Germany

2. University Medical Centre, Institute for Medical Statistics, Mannheim, Germany

3. IMPULSE Dynamics, Orangeburg, NY, USA

4. Columbia University, Cardiology, NY, USA

*Aims:* To analyze long-term efficacy and survival in patients with chronic heart failure treated with cardiac contractility modulation.

*Methods:* 81 patients implanted with a CCM device between 2004 and 2012 were included in this retrospective analysis. Changes in NYHA class, ejection fraction (EF), Minnesota Living with Heart Failure Questionnaire, NTproBNPand peak VO2 were analyzed during a mean follow up of 34.2 ± 28 months (6–123 months). Observed mortality rate was compared with that predicted by the MAGGIC Score.

*Results:* Patients were 61 ± 12 years old with EF 23 ± 7%. Heart failure was due to ischemic (n= 48, 59.3%) or idiopathic dilated (n=33, 40.7%) cardiomyopathy. EF increased from 23.1±7.9 to 29.4±8.6% (p b 0.05), meanNT-proBNP decreased from 4395 ± 3818 to 2762 ± 3490 ng/l (p b 0.05) and mean peak VO2 increased from 13.9 ± 3.3 to 14.6 ± 3.5 ml/kg/min (p= 0.1). The overall clinical responder rate (at least 1 class improvement of NYHA within 6 months or last follow-up) was 74.1%. 21 (25.9%) patients died during follow up, 11 (52.4%) due to cardiac conditions and 10 (47.6%) due to non-cardiac conditions. Mortality rates at 1 and 3 years were 5.2% and 29.5% compared to mortality rates estimated from the MAGGIC risk score of 18.4% (p b 0.001) and 40% (p = ns), respectively. Log-Rank analysis of all events through 3 years of follow-up, however, was significantly less than predicted (p= 0.022).

*Conclusions:* CCMtherapy improved quality of life, exercise capacity, NYHA class, EF and NT-proBNP levels during long-term follow up. Mortality rates appeared to be lower than estimated from the MAGGIC score.