

P988

## Implantable cardioverter defibrillators in patients with electrical heart disease and hypertrophic cardiomyopathy - data from the German device Registry

G. Frommeyer<sup>1</sup>, F. Reinke<sup>1</sup>, D. Andresen<sup>2</sup>, T. Klemann<sup>3</sup>, S.G. Spitzer<sup>4</sup>, J. Jehle<sup>5</sup>, J. Brachmann<sup>6</sup>, C. Stellbrink<sup>7</sup>, M. Hochadel<sup>8</sup>, J. Senges<sup>8</sup>, L. Eckardt<sup>1</sup>

<sup>1</sup>University Medical Center, Clinic for Cardiology II - Electrophysiology, Münster, Germany; <sup>2</sup>Department of Cardiology, Kardiologie am Hubertus-Krankenhaus, Berlin, Germany; <sup>3</sup>Hear Center Ludwigshafen, Ludwigshafen, Germany; <sup>4</sup>Praxisklinik Herz und Gefaesse, Dresden, Germany; <sup>5</sup>Department of Cardiology, Klinikum Straubing, Straubing, Germany, Straubing, Germany; <sup>6</sup>Cardiac Center of Coburg, Coburg, Germany; <sup>7</sup>Bielefeld Hospital, Bielefeld, Germany; <sup>8</sup>Stiftung Institut für Herzinfarktforschung, Ludwigshafen, Germany

**Background:** Implantable cardioverter- defibrillator (ICD) therapy is established for prevention of sudden cardiac death (SCD) in different entities. However, data from large patient cohorts on patients with electrical heart disease of hypertrophic cardiomyopathy (HCM) is rare. Therefore, we investigated these patients by analysing registry data from a multi-center "real-life" registry.

**Methods:** The German Device Registry (DEVICE) is a nationwide, prospective registry with one-year follow-up investigating 5450 patients receiving device implantations in 50 German centres. The present analysis of DEVICE focussed on patients with electrical heart disease or HCM who received an ICD for primary or secondary prevention.

**Results:** 174 patients with HCM and 112 patients with electrical heart disease were compared with 5164 other ICD patients. Median follow-up was 17.0 months. Patients in the control group were significantly older. Of note,

overall mortality after one year was 1.8% in HCM patients, 6.6% in patients with electrical heart disease and 7.3% in the control group. Patients in the control group presented significantly more severe comorbidities. In contrast to HCM patients and the control group where primary prevention was the major indication for ICD implantation 77.5% of patients with electrical heart disease received an ICD for secondary prevention. The number of surgical revisions was higher in patients with electrical heart disease.

**Conclusion:** Data from the present registry display a surprisingly high mortality in patients with electrical heart disease equivalent to the control group. A high proportion of patients who received an ICD for secondary prevention may be regarded as a major determinant for these results while severe comorbidities such as diabetes, hypertension and renal failure are major determinants for mortality in the control cohort.