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PROGNOSTIC ROLE OF POST-INFARCTION C-REACTIVE PROTEIN IN IMPLANTABLE CARDIOVERTER DEFIBRILLATOR PATIENTS: RESULTS OF THE CAMI GUIDE STUDY.

ACC Poster Contributions
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Background: implantable cardioverter-defibrillators (ICD) significantly reduce the risk of sudden death (SD). However, predictors of SD other than ejection fraction (EF) are still lacking. The purpose of the C-reactive Protein Assessment after Myocardial Infarction to Guide Implantation of Defibrillator (CAMI GUIDE) study was to evaluate the role of CRP in predicting SCD in post MI patients scheduled for ICD implantation for primary prevention.

Methods: CAMI GUIDE was a multicenter prospective observational study of patients receiving an ICD for primary prevention after MI according to MADIT II criteria. All types of ICD were considered. The primary endpoint was the combined rate of SD or fast ventricular tachycardia/ventricular fibrillation (VF) requiring ICD intervention. Secondary endpoints were total mortality, death and hospitalization for heart failure (HF). Outcomes were evaluated according to baseline CRP, using a 3mg/l cut-off, after two years of follow-up.

Results: 294 Pts of which 263 male and 123 NYHA class >II, were enrolled and followed for a median of 23.6 months. 104 patients were implanted with a CRT. Mean age was 68±10yrs; LVEF 26±4%; systolic blood pressure 121±18 mmHg, resting heart rate 71±14 bpm, QRS duration 129±36 ms, median time from MI was 69 months. Total mortality at two years was 20.6%, HF mortality was 7.7% and incidence of primary endpoint was 17.0%. No significant difference in primary endpoint was found between patients with CRP≤3 vs >3 (HR:0.92 [0.52-1.62] p=0.773). In adjusted analysis including age, gender, CRT and NYHA class, presence of biventricular pacing was significantly associated with lower risk of SCD or arrhythmias (HR: 0.48 [0.23-1.98] p=0.045). CRP> 3 mg/l was associated with total mortality (HR: 2.61 [1.47-4.64] p=0.001) and mortality for HF (HR: 6.09 [1.79-20.69] p=0.004). In CRT patients, CRP>3 vs <=3 showed a significant discrimination in primary endpoint (15% vs 1.56%; p=0.0314).

Conclusion: In this ICD population, CRP>3 mg/l is not associated with occurrence of SCD or fast VT/VF. However CRP is a predictor of total and HF mortality. Interestingly, CRT reduced the risk of SD and, in this subgroup, CRP was a strong predictor of primary end-point.