

CARDIAC FUNCTION AND HEART FAILURE

PREVALENCE AND PROGNOSTIC IMPACT OF ANEMIA AND RENAL INSUFFICIENCY: RELATION TO HEART FAILURE SEVERITY

ACC Poster Contributions

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Background: Anemia and renal insufficiency (RI) correlate with adverse outcomes in heart failure (HF). Data relating HF stage with prevalence and prognostic impact of these comorbidities are scarce. Based on prospectively collected Competence Net Heart Failure (CNHF) data we systematically addressed this issue.

Methods: Patients were gleaned from 4 CNHF cohorts, if they had complete standardized data sets including echo/Doppler obtained at baseline and a follow-up of at least 18 months. 3260 patients were allocated to ACC/AHA stages A (n=255), B (n=1311), C1 (NYHA I+II; n=1080), C2+D (NYHA III+IV, n=614). Anemia was defined as hemoglobin <13/12 g/dl in men/women (WHO criteria), and RI as a glomerular filtration rate <60 ml/min/1.73m².

Results: Average patient age in A/B/C1/C2+D was 64/67/65/68 yrs (P trend <0.001); 52/53/37/36% were female. Mean hemoglobin and GFR decreased with increasing HF severity (14.2±1.3/14.0±1.2/14.0±1.8/13.4±2 g/dl, P <0.001, and 76±18/74±18/74±24/64±26, P<0.001), while prevalence of anemia and RI increased (5/8/18/31%, P<0.001, and 19/21/27/48%, P<0.001). In Cox Regression adjusted for age, sex, ejection fraction, NYHA-class coincidence of anemia und RI was incrementally associated with mortality both in asymptomatic (stage B) and symptomatic patients (stage C+D).

Conclusions: Prevalence of both, anemia and RI is significant already in stages A/B and increases with HF severity. Impact on prognosis is cumulative and equally adverse in early and advanced HF stages.

