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Heart Failure

PREDICTIVE VALUE OF RENAL INSUFFICIENCY IN CLINICAL OUTCOMES IN HOSPITALIZED HYPONATREMIC PATIENTS WITH SYSTOLIC HEART FAILURE: THE CLINICAL CHARACTERISTICS AND OUTCOMES IN RELATION WITH SERUM SODIUM LEVEL IN ASIAN PATIENTS HOSPITALIZED FOR HEART FAILURE (THE COAST) STUDY

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Lessons Learned from Acute Decompensated Heart Failure

Abstract Category: 15. Heart Failure: Clinical

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Background: Renal insufficiency (RI) and hyponatremia (HN) are common and have prognostic value in heart failure (HF) patients. The predictive value of RI has not been evaluated in Asian hospitalized HF patients complicated by HN.

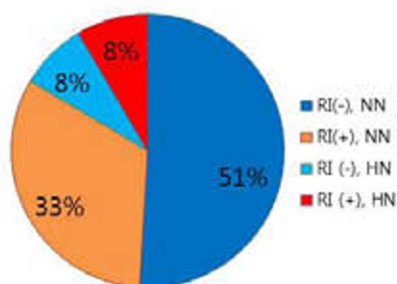
Methods: The Clinical Characteristics and Outcomes in Relation with Serum Sodium Level in Asian Patients Hospitalized for Heart Failure (the COAST) Study, a multi-national, multi-center, population based study, enrolled hospitalized patients with systolic HF (ejection fraction <45%) at 8 study centers in South Korea, Taiwan, and China. The primary endpoint was 12-months mortality stratified by renal function and serum sodium.

Results: Of 1573 enrolled patients, 927 patients (58.9%) had normal renal function and 646 patients (41.1%) had RI (GFR < 60ml/min/1.72m²). Patients with RI had more adverse clinical characteristics. The 12-month mortality rate was higher in the RI group than in those without (22.9% vs. 9.9%, $p < 0.001$). After adjustment, RI was associated with 56% increase in 12-month mortality (adjusted HR, 1.70, 95% CI 1.14-2.54).

260 patients (16.5%) had hyponatremia (HN), defined as $Na < 135$ mmol/l. The mortality rate was lowest in normal renal function-normonatremia (NN) group (8.2%), but highest in RI-HN group (31.3%) (Log rank $P < 0.001$).

Conclusions: In hospitalized Asian HF-patients, RI was an independent predictor of mortality. Its adverse effect was more pronounced among HF-patients with preexisting HN.

Renal function & serum sodium



12-month mortality

