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Letters

TO THE EDITOR

Clinical Context of Dyskalemias Across the Heart Failure Spectrum and Their Associated Adverse Outcomes

We read with interest the recent paper by Savarese et al. (1) that describes the incidence and predictors of dyskalemia across a range of heart failure phenotypes and its associations with mortality and hospitalizations for cardiovascular disease. These data validate prior observations on the risk of hyperkalemia in the context of heart failure (especially with concomitant kidney disease) (2), and the risk factors and reported outcomes associations with hypokalemia in this study are intriguing. Unfortunately, the context in which the dyskalemia events occurred is not reported. It would be of great value to understand the proportion of events that were asymptomatic in the ambulatory setting and which ones occurred during hospitalizations for acute heart failure, particularly in the setting of type 1 cardiorenal syndrome. The relationship between nonuse of renin-angiotensin-aldosterone system (RAAS) inhibitors and beta-blockers in this dataset and the risk of hypokalemia may point toward a relatively unabated renin-angiotensin system and a less optimized myocardial pressure volume curve across ejection fraction strata, which could foster resistance to diuretic agents and the need for escalating doses of diuretic agents and worsening hypokalemia. The increased risk of mortality and cardiovascular disease hospitalizations with hypokalemia may be a surrogate marker of resistance to diuretic agents and withdrawal of RAAS inhibitors in acute heart failure, which are known markers for adverse cardiovascular outcomes and mortality (3,4). The deleterious effect of nonuse of RAAS inhibitors in acute or chronic heart failure, including in those subjects with kidney impairment, calls to attention the need to change the reflexive tendency to withdraw RAAS inhibitors in advanced chronic kidney disease and in response to small and nonharmful fluctuations in serum creatinine levels in the setting of appropriate decongestion (5), to maximize the benefits of these agents in the vulnerable group of patients with acute or chronic cardiorenal syndrome.

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Please note: Drs. Rangaswani and McCullough have reported that they have no relationships relevant to the contents of this paper to disclose.

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REPLY: Clinical Context of Dyskalemias Across the Heart Failure Spectrum and Their Associated Adverse Outcomes

We thank Drs. Rangaswami and McCullough for their interest in our study (1). Registry studies have the advantage of large generalizable population, but the trade-off is a relative lack of detail. In this study, we could enrich our register with all subsequent plasma potassium tests performed in health care (2) but we lacked additional information on symptoms beyond New York Heart Association functional class, and our design did not allow defining in detail the context in which dyskalemia occurred. Kindly note, however, that incident dyskalemia did not predict the risk of heart failure (HF) hospitalization in our analysis.