COMMENT ON PAOLISSO ET AL.

Impact of Admission Hyperglycemia on Heart Failure Events and Mortality in Patients With Takotsubo Syndrome at Long-term Follow-up: Data From HIGH-GLUCOTAKO Investigators. Diabetes Care 2021;44:2158–2161

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I read with interest the contribution by Paolisso et al. (1) about the performance of admission hyperglycemia (AH) (blood glucose >140 mg/dL) as a predictor of long-term prognosis in 76 patients with takotsubo syndrome (TTS), 28 with and 48 without AH. Patients with AH showed lower left ventricular ejection fraction on admission and discharge and higher levels of B-type natriuretic peptide and inflammatory markers, with the glucose values correlating with serum norepinephrine levels. In a subgroup of 30 patients who underwent a ^{123}I-MIBG cardiac scintigraphy, patients with AH showed lower late heart-to-mediastinum ratio values at a follow-up of 12 and 24 months than the ones without AH. Patients with AH had higher rates of heart failure and all-cause mortality after 24 months than the ones without AH, with tumor necrosis factor-α and serum norepinephrine being independent predictors of heart failure.

I would greatly appreciate the response of the authors on the following: *1*) Since norepinephrine mediates AH, one wonders whether the AH was an index of increased underlying sympathetic overactivity and/or diabetes comorbidity, since the patients with AH had a higher prevalence of diabetes than the patients without AH (39.3% vs. 14.6%); accordingly, what was the independent predictive influence of norepinephrine versus diabetes in the observed AH? *2*) Recently, and based on vast animal literature and limited clinical application, it has been proposed that euglycemic intravenous insulin therapy (irrespective of the presence of AH and/or history of diabetes), with careful attention to prevent both hypoglycemia and hypokalemia, may have beneficial effects in the management of TTS (2–4); what are the authors' thoughts about this proposal?

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References

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