

Letters

TO THE EDITOR

Navigating Nutritional Nuances in the Research of Heart Failure With Preserved Ejection Fraction



We read the recent paper by Espino-Gonzalez et al¹ with great interest. The study emphasizes the urgent need for alternative therapies for heart failure with preserved ejection fraction (HFpEF)-associated skeletal muscle pathology, such as caloric restriction and resistance exercise interventions to stimulate improvements in muscle mass and function. Although these findings offer valuable insights, their translation to clinical practice may encounter challenges, particularly in light of the diverse and nuanced nutritional statuses observed in patients with HFpEF.

Takeuchi et al² examined patients eligible for the EMPEROR-Preserved (Empagliflozin Outcome Trial in Patients With Chronic Heart Failure With Preserved Ejection Fraction) trial, a trial designed to study the effect of sodium-glucose cotransporter 2 inhibitors in patients with HFpEF. The study categorized these eligible patients on the basis of their nutritional status, assessed using the geriatric nutritional risk index, revealing that a substantial proportion of patients eligible for the trial were at high risk for malnutrition.² This observation is particularly relevant to the clinical setting because patients with high nutritional risk exhibited a higher rate of the composite endpoint, comprising all-cause mortality and heart failure rehospitalisation.² This highlights the need to consider crucial factors such as malnutrition when evaluating the applicability and outcomes of therapeutic interventions in the clinical setting, an aspect that Espino-Gonzalez et al¹ did not address.

Moreover, the intricate relationship between obesity and malnutrition in patients with heart failure, as explored by Zainul et al,³ introduces an additional layer of complexity to the clinical picture. They examined 231 patients with HFpEF and found that despite a 63% prevalence of obesity, there was a striking 42% prevalence of malnutrition.³ Furthermore, malnutrition was significantly associated with the composite outcome of all-cause mortality and all-

cause hospitalization, validating Takeuchi et al's² findings. The coexistence of obesity and malnutrition in patients with HFpEF not only highlights the complex nutritional spectrum within this population but also underscores the necessity for a tailored approach to patient management, which involves addressing diverse nutritional statuses.

In conclusion, although Espino-Gonzalez et al¹ have made a commendable contribution to understanding myofiber growth in HFpEF, we believe that an in-depth consideration of nutritional status is crucial, especially considering the prevalence of malnutrition in patients with HFpEF. It would be insightful for the authors to discuss how nutritional status might influence the success of interventions such as caloric restriction and resistance exercise. Integrating nutritional assessments into the study design would likely enhance the clinical relevance of the findings.

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<https://doi.org/10.1016/j.jacbts.2024.01.013>

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The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

REFERENCES

1. Espino-Gonzalez E, Tickle PG, Altara R, et al. Caloric restriction rejuvenates skeletal muscle growth in heart failure with preserved ejection fraction. *J Am Coll Cardiol Basic Trans Science*. 2024;9(2):223-240.
2. Takeuchi S, Kohno T, Goda A, et al. Malnutrition in real-world patients hospitalized for heart failure with preserved ejection fraction and its potential impact on generalizability of EMPEROR-Preserved trial. *Int J Cardiol*. 2023;370:263-270.
3. Zainul O, Perry D, Pan M, et al. Malnutrition in heart failure with preserved ejection fraction. *J Am Geriatr Soc*. 2023;71:3367-3375.