



LETTER TO THE EDITOR

The PARADIGM-HF population may be very different from real-world heart failure patients



A população do PARADIGM-HF pode ser muito diferente do mundo real dos pacientes com insuficiência cardíaca

I have read with great interest the article by Rodrigues et al.¹ and the editorial comment² about the use of sacubitril/valsartan in patients with systolic heart failure, and I share the same concerns about the target population of this drug.

In an epidemiological study in Lima, Peru,³ of 1075 patients with heart failure, 46% had normal ejection fraction and only 39% had heart failure with reduced ejection fraction ($\leq 40\%$) (HFrEF). Overall, 30% of patients with heart failure also had chronic renal disease, leaving only 20-25% of patients eligible for treatment with sacubitril/valsartan.

In a high-altitude population like Huancayo (3250 meters above sea level), the profile of heart failure patients is even more dissimilar,⁴ with 89.9% of patients having a normal ejection fraction, while around 25% of individuals have heart failure and chronic lung disease, leaving only 2.2% of patients eligible for this drug.

Another concern is about how many patients will tolerate the target dose of 97/103 mg, because as Antol et al.⁵ pointed out, only 17.4% of patients in their retrospective study could achieve this goal. Despite this result, the hospitalization rate, symptoms and weight gain decreased in those who were treated with sacubitril/valsartan.

In search of an answer about the profile of patients who will benefit from sacubitril/valsartan, the PARAGON-HF trial⁶ is currently under way and will try to determine if the drug is useful for patients with preserved ejection fraction (HFpEF). Caution must be exercised because drugs used for HFrEF that showed promise for HFpEF did not improve prognosis for this condition when tested in large clinical trials.⁷⁻⁹

As Ricardo Fontes-Carvalho pointed out in his editorial comment,² we must recognize that sacubitril/valsartan is an important advance for heart failure therapy, even though its benefits have not been proved in a broader, real-world heart failure population. Taking this into account, new drugs

are needed for patients with heart failure who have chronic renal or pulmonary conditions or have normal or intermediate ejection fraction.

Conflicts of interest

The author has no conflicts of interest to declare.

References

- Rodrigues G, Tralhão A, Aguiar C, et al. Será a coorte do PARADIGM-HF representativa da população do mundo real de doentes com insuficiência cardíaca? Rev Port Cardiol. 2018;37:491-6.
- Fontes-Carvalho R. Sacubitril-valsartan in the real world: from theory to clinical practice. Rev Port Cardiol. 2018;37:497-8.
- Pariona M, Segura Saldaña P, Padilla Reyes M, et al. Epidemiological clinical characteristics of acute cardiac insufficiency in a tertiary hospital in Lima, Perú. Rev Peru Med Exp Salud Pública. 2017;34:655-9.
- Calderón W, Contreras O, Munive V. Diastolic heart failure: most common type of heart insufficiency in high-altitude residents. Rev Soc Per Med Int. 2006;19:19-26.
- Antol D, Casebeer A, DeClue R, et al. An early view of real-world patient response to sacubitril/valsartan: a retrospective study of patients with heart failure with reduced ejection fraction. Adv Ther. 2018;35:785-95.
- Joly J, Desai A. Sacubitril/valsartan: from clinical trials to real-world experience. Curr Treat Options Cardiovasc Med. 2018;20:45.
- Massie B, Carson P, McMurray J, et al. Irbesartan in patients with heart failure and preserved ejection fraction. N Engl J Med. 2008;359:2456-67.
- Yamamoto K, Origasa H, Hori M, et al. Effects of carvedilol on heart failure with preserved ejection fraction: the Japanese Diastolic Heart Failure Study (J-DHF). Eur J Heart Fail. 2013;15:110-8.
- Upadhye B, Haykowsky MJ, Kitzman DW. Therapy for heart failure with preserved ejection fraction: current status, unique challenges, and future directions. Heart Fail Rev. 2018. <http://dx.doi.org/10.1007/s10741-018-9714-z>.

Walter Calderón-Gerstein^{a,b}

^a Hospital Nacional "Ramiro Priale Priale", Internal Medicine Service, Huancayo, Essalud, Peru

^b Universidad Continental, Huancayo, Peru