

Letters to the Editor

Ventricular Support With Extracorporeal Membrane Oxygenation: A Double-edged Sword**Asistencia ventricular con oxigenador extracorpóreo de membrana: un arma de doble filo****To the Editor,**

We have read with the utmost interest the article by Merchán et al¹ on the use of ventricular support with extracorporeal membrane oxygenation (ECMO) in situations other than cardiogenic shock, recently published in *Revista Española de Cardiología*. We share the authors' interest and enthusiasm for the potential benefits of a technique of this type in distinct cardiology scenarios, especially in the most severely ill patients. Nevertheless, we feel obliged to offer a few comments on the subject.

In our experience,^{2,3} ventricular support with ECMO can have a spectacular and immediate hemodynamic effect in patients with cardiogenic shock, especially in those in a very critical condition, with rapidly progressing hemodynamic deterioration despite high doses of vasopressors and inotropic agents (Interagency Registry for Mechanically Assisted Circulatory Support [INTERMACS] 1 profile). Nevertheless, most published series⁴ show that this benefit comes at the expense of a high incidence of serious complications, leading to heavy resource use and a high mortality rate. These complications are due to the use of an extracorporeal circuit, the increase in left ventricular afterload, the need for full-dose parenteral anticoagulation, and the use of larger cannulas than would be needed with other devices. All these factors, together with the lack of randomized studies demonstrating a prognostic benefit in critically ill cardiovascular patients, leads us to consider that, at the present time, its use is justified only in the most severely ill patients for whom there are no other therapeutic alternatives. While we share the interest of Merchán et al. in the benefits of ventricular support with ECMO in other clinical scenarios, we find the use of such an aggressive technique in more stable patients to be frankly controversial. It seems difficult to justify the need for an ECMO circuit in a patient undergoing a high-risk intervention without marked hemodynamic deterioration, and even more so when there are other less aggressive therapeutic alternatives (intra-aortic balloon pump and other devices for percutaneous ventricular support⁵), which, despite the lack of solid evidence based on randomized, prospective studies, have shown good results. For all these reasons, we consider that the message concerning the benefits of ventricular support with

ECMO in certain situations should be conveyed with the utmost caution.

We believe that it is especially necessary to gain greater knowledge of the possible benefit of such a promising therapeutic tool in the acute cardiology patient, promoting the creation of high-quality, prospective, multicenter registries. In this regard, reports like that of Merchán et al¹ undoubtedly constitute a step in the right direction.

Albert Ariza-Solé,^{a,*} Victòria Lorente,^a José Carlos Sánchez Salado,^a and José González-Costello^b

^aUnidad de Cuidados Intensivos Cardiológicos, Hospital Universitario de Bellvitge, L'Hospitalet de Llobregat, Barcelona, Spain

^bUnidad de Insuficiencia Cardíaca Avanzada y Trasplante, Hospital Universitario de Bellvitge, L'Hospitalet de Llobregat, Barcelona, Spain

* Corresponding author:

E-mail address: aariza@bellvitgehospital.cat (A. Ariza-Solé).

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Ventricular Support With Extracorporeal Membrane Oxygenation: A Double-edged Sword. Response**Asistencia ventricular con oxigenador extracorpóreo de membrana: un arma de doble filo. Respuesta****To the Editor,**

Regarding the Letter to the Editor from Ariza-Solé et al, in which they offer their point of view concerning the article we published

in *Revista Española de Cardiología*,¹ we would like to add the following comments and reflections.

The use of a ventricular assist device with extracorporeal membrane oxygenation (VA-ECMO) for hemodynamic support in high-risk percutaneous coronary interventions and electrical storm can, as we show in our experience, be a valuable tool compared with other types of support. Intraaortic balloon counterpulsation is the oldest and simplest method, but its efficacy in patients with cardiac indices lower than 2 L/min/m² is questioned. In these cases, the next option in the range of