



LETTER TO THE EDITOR

Variables associated with survival free of severe neurological sequelae in patients recovered from cardiac arrest[☆]



Variables asociadas al pronóstico tras parada cardíaca

Sir,

We have read the article published by Loza et al.¹ on the prediction of mortality and neurological function in adults recovering from cardiac arrest with great interest. Despite the use of therapeutic hypothermia, patients recovering from out-hospital cardiac arrest are at a high risk of death or severe neurological impairment. The authors described patient age, a non-cardiac origin of cardiac arrest, and a time to return of spontaneous circulation (ROSC) > 20 min as predictors of mortality, and found cardiac arrest of cardiac origin, ROSC < 20 min and defibrillable rhythms to be associated to a favorable neurological outcome. These data coincide with our own recently published findings.² In fact, most of the variables which we found to be associated to survival free from severe neurological sequelae coincide with those described by Loza et al. (defibrillable rhythm, age and ROSC). In our case we also found lactate concentration upon admission and diabetes to be associated to the patient prognosis; these variables were not described in the study of Loza et al. Lactate upon admission is one of the main prognostic factors following cardiac arrest,^{3,4} and other authors have also found diabetes to be associated to a lesser probability of ROSC and survival at 30 days.⁵ We therefore consider it important to include these variables in predictive models of help in predicting survival free from severe neurological sequelae in the follow-up of patients recovering from cardiac arrest.

References

1. Loza A, del Nogal F, Macías D, León C, Socías L, Herrera Lesmes L, et al. Predictors of mortality and neurological

function in ICU patients recovering from cardiac arrest: a Spanish nationwide prospective cohort study. *Med Intensiva*. 2020; <http://dx.doi.org/10.1016/j.medin.2020.02.006> [Epub ahead of print].

2. Pérez-Castellanos A, Martínez-Sellés M, Uribarri A, Devesa-Cordero C, Sánchez-Salado JC, Ariza-Solé A, et al. Development and external validation of an early prognostic model for survivors of out-of-hospital cardiac arrest. *Rev Esp Cardiol (Engl Ed)*. 2019;72:535–42, <http://dx.doi.org/10.1016/j.rec.2018.05.022>.
3. Laurikkala J, Skrifvars MB, Bäcklund M, Tiainen M, Bendel S, Karhu J, et al. Early lactate values after out-of-hospital cardiac arrest: associations with one-year outcome. *Shock*. 2019;51:168–73, <http://dx.doi.org/10.1097/SHK.0000000000001145>.
4. Orban JC, Novain M, Cattet F, Plattier R, Nefzaoui M, Hyvernat H, et al. Association of serum lactate with outcome after out-of-hospital cardiac arrest treated with therapeutic hypothermia. *PLoS One*. 2017;12(3):e0173239, <http://dx.doi.org/10.1371/journal.pone.0173239>.
5. Mohr GH, Søndergaard KB, Pallisgaard JL, Møller SG, Wissenberg M, Karlsson L, et al. Survival of patients with and without diabetes following out-of-hospital cardiac arrest: a nationwide Danish study. *Eur Heart J Acute Cardiovasc Care*. 2019;(Jan):11, <http://dx.doi.org/10.1177/2048872618823349> [Epub ahead of print].

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