

# Extracorporeal membrane oxygenation (ECMO) for critically ill patients with coronavirus disease 2019 (COVID-19): A retrospective cohort study


The article "Extracorporeal membrane oxygenation (ECMO) for critically ill patients with coronavirus disease 2019 (COVID-19): A retrospective cohort study" by Li et al.<sup>1</sup> was thoroughly and enthusiastically read. We agree with the study's conclusion that extracorporeal membrane oxygenation can significantly reduce mortality in COVID-19 patients presenting with severe disease. It is, however, our privilege to add a few supplementary points that would enrich this study's wealth of information.


First, the study should have considered using diagnostic tests that could have accurately determined a patient's health status at the time of inclusion. During 2020, a study<sup>2</sup> was conducted in which laboratory tests, such as D-dimer, were incorporated into the study as variables, a test relevant to patient prognosis. Second, besides venovenous and venoarterial ECMO, the study should have included hybrid ECMO as a hemodynamic support treatment. A study<sup>3</sup> published in 2020 concluded that hybrid ECMO could be administered to patients who develop thrombotic events or myocarditis after receiving venous ECMO.

Third, the study included a limited number of variables, potentially influencing the results. In a 2020 study,<sup>4</sup> the consumption of substances such as alcohol and tobacco was included as a variable that significantly affected the progression of the patient's disease. Fourth, the study is retrospective and conducted at a single center, making the results unreliable. In a 2021 prospective and multidimensional study<sup>5</sup> conducted in the United States, data from 20 hospitals were analyzed, enabling the authors to reach significant, externally valid conclusions. Last, we believe incorporating the abovementioned points would have improved the study's quality.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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