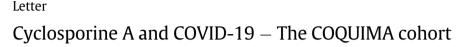
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A R T I C L E I N F O

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Dear Editor:—We would like to congratulate the Spanish group [1], who evaluated several repurposed drugs for coronaviral disease-19 (COVID-19) in their cohort study, whereby they came to a similar conclusion as the SOLIDARITY study of the WHO [2]. Two aspects were different: They did not evaluate remdesivir, but included Cyclosporine A (CsA).

None of these drugs reduced mortality significantly, with the exception of CsA, showing a 4-fould decrease in observed mortality in the Spanish study, resulting in an impressive survival curve, significantly different from all other treatments.

Treatment with CsA leads to a decrease of hyperinflammation and probably to a decreased viral replication as well [3].

Although CsA is a typical immunosuppressive drug in transplant medicine, its use for COVID-19 in immunocompetent patients requires adapted instructions: the study adds clear information on the dosing (cumulative dose at least 300 mg), duration (max 3 weeks) and trough drug level monitoring.

Interestingly, the authors mention that CsA use moved swiftly from being a "salvage therapy in refractory cases to initial therapy at triage" based on their experience. Now the evidence for CsA in COVID-19 is clearly stronger than for tacrolimus, the other calcineurin inhibitor. The results from two interventional studies investigating these compounds are pending [4,5].

CsA additionally has the advantage of the intravenous application route, which may be crucial in critically ill patients.

Two important questions remain: Firstly, when should CsA be given (what disease stage)? Is the effective cumulative dose based on oral or intraveneous administration, since dosing differs by a factor 3?

Declaration of Competing Interest

None.

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