


## LETTER TO EDITOR

# Corticosteroids for mild COVID-19 treatment: opening the floodgates of therapeutic benefits

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In the interesting commentary on the use of corticosteroids for the treatment of mild coronavirus disease 2019 (COVID-19) published in QJM,<sup>1</sup> the authors concluded that it is imperative their cautious use, based on both evidence and common sense. They reported that there is no study, so far, demonstrating tangible benefits of steroid use in mild cases, while future well-designed clinical trials can further prove the merit of corticosteroids in mild cases of COVID-19. There was skepticism regarding the potential risk of viral replication increase, the side-effects as hyperglycemia, risk of secondary infections or reactivation of latent infections and possible steroid shortage in pharmacies and hospitals. However, a previous published meta-analysis and systematic review<sup>2</sup> demonstrated that in the absence of contra-indications and/or side-effects, the use of steroids should be considered in coronavirus infection including COVID-19. Interestingly, clinical data have shown that asthma and chronic obstructive pulmonary disease exacerbations, often attributed to viral cause, can be reduced with the use of inhaled corticosteroids, while inhaled glucocorticoids can further reduce the severe acute respiratory syndrome coronavirus 2 replication in airway epithelial cells and down regulate the expression of angiotensin converting enzyme 2 and transmembrane protease serine 2 genes, that seem to be critical for viral cell entry.<sup>3</sup> Based on these observations, a recent study revealed that early administration of inhaled budesonide can reduce the need of urgent medical care as well as the time to recovery post early COVID-19.<sup>4</sup> Moreover, an open-label study (although it did not meet the superiority threshold), has shown that inhaled budesonide can reduce (i) the recovery time by a median of 3 days in COVID-19 people with risk factors for adverse

outcomes, (ii) the hospital admissions or deaths in people with COVID-19 in community who are at higher risk of complications and finally (iii) the recovery time of non-admitted patients to hospital.<sup>5</sup> Since such treatment is relatively safe and widely available, the above findings need urgent validation and dissemination so as to be applied in daily clinical practice.

*Conflict of interest.* None declared.

## References

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