



Urgent need of a management plan for survivors of COVID-19

To the Editor:

Acute exacerbations of COPD (AECOPD) or “COPD crises” [1], are crucial events in the natural course of COPD. Although they can occur at any severity stage, their impact increases as patients develop more severe airflow limitation.

Several studies have demonstrated that the occurrence of COPD exacerbations increases the risk of myocardial infarction and stroke [2], all cause [3, 4] and cardiovascular mortality [5], in the post exacerbation period, particularly in AECOPD with associated pneumonia [6]. This was best demonstrated by KUNISAKI *et al.* [7] in a pre-specified analysis of the data from the SUMMIT trial of over 16 thousand patients with moderate COPD and heightened cardiovascular risk. The authors found that the hazard ratio for cardiovascular events was increased, particularly in the first 30 days after the exacerbations (HR 3.8, 95% CI 2.7–5.5). The risk increased more than two-fold if the exacerbations led to a hospitalisation; in this case, the hazard ratio reached 9.9 (95% CI 6.6–14.9). This study was important because all deaths were analysed by a clinical end-point committee. There was an unusually high number of cardiovascular events occurring after the exacerbations, suggesting some vascular dysfunction leading to myocardial infarction, stroke and pulmonary embolism.

This scenario appears to be similar to that reported to occur following hospitalised pneumonias, particularly in the elderly [8–10].

The current coronavirus disease 2019 (COVID-19) pandemic affects primarily adults and particularly those affected by one or more chronic diseases [11]. Because most cases of severe COVID-19 are due to pneumonia associated with respiratory failure [11, 12], it is likely that, similar, to patients with exacerbations of COPD and/or community acquired pneumonia, the survivors of COVID will be at high risk of cardiovascular events and mortality following the acute phase of the disease. We would like to call attention to this vulnerable period, and recommend that patients be closely followed with a management plan that pays special attention to the prompt recognition of cardiovascular complications, especially in the 30 days following the resolution of the acute phase of the event. It would be a pity that those survivors of COVID-19 pneumonia, would then succumb from a relatively preventable consequence.



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Survivors of COVID-19 may be at increased risk of cardiovascular morbidity and mortality and should be carefully monitored <https://bit.ly/2UhVjoy>

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