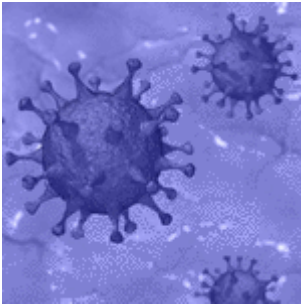


COVID-19 – Cytokine storm syndromes and immunosuppression



SARS-CoV-2 disease 2019 (COVID-19) has a mortality of approximately 3.7% and there is an urgent need for effective treatment. Current focus has been on the development of novel therapeutics, including antivirals and vaccines. However immunosuppression could help severe patients.

Mehat, P. et al recently stated that there is accumulating evidence suggests that a subgroup of patients with severe COVID-19 might have cytokine storm syndrome.

The leading cause of death for COVID-19 is acute respiratory distress syndrome. However Secondary haemophagocytic lymphohistiocytosis (sHLH) is commonly triggered by viral infections. A cytokine profile resembling sHLH is associated with COVID-19 disease severity. Tests from COVID-19 patients in Wuhan, China suggested that mortality might be due to virally driven hyperinflammation.

Corticosteroids are not recommended for COVID-19 treatment as they may exacerbate lung injury ([Russel et al., 2020](#)). However, in hyperinflammation, immunosuppression is likely to be beneficial. [A multicentre, randomised controlled trial of tocilizumab \(IL-6 receptor blockade, licensed for cytokine release syndrome\), has been approved in patients with COVID-19 pneumonia and elevated IL-6 in China.](#)

The authors suggest that all patients with severe COVID-19 should be screened for hyperinflammation and subgroups of patients identified for whom immunosuppression therapy could improve mortality. Therapeutic options include steroids, intravenous immunoglobulin, selective cytokine blockade (eg, anakinra or tocilizumab) and JAK inhibition ([Richardson et al., 2020](#)).

Journal Article: [Mehta, P. et al, 2020. The Lancet. COVID-19: consider cytokine storm syndromes and immunosuppression.](#)

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