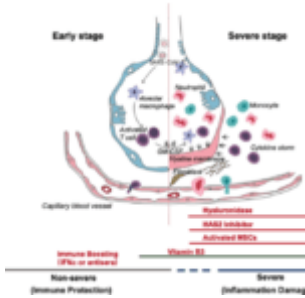


Uncertainty is hampering doctors' ability to treat COVID-19



There is a great deal of uncertainty prevailing across the globe over the current COVID-19 pandemic, and clinicians and scientists are working hard to find a cure to treat this disease (Read [Solidarity Trial](#)). However, doubt about whether the SARS-CoV-2 virus itself or the patient's immune system inundates the patient's organs is making it extremely difficult to determine the best treatment.

Clinical studies in China suggested that in addition to the attack by the virus, an overactive immune system might also contribute to the deterioration or death in patients. COVID-19 patients were found to suffer from cytokine storm in their blood, particularly that involving IL-6. One of the roles of IL-6 is to recruit immune cells, including macrophages, which then fuel inflammation, potentially damaging normal lung cells.

The ideal treatment for these patients would be a drug that blocks IL-6 activity and reduces the flow of macrophages into the lungs. IL-6 inhibitors are already in use for the treatment of diseases like rheumatoid arthritis. Currently, however, many clinicians recommend steroids, which may help lessen the effects of the overactive immune system. However, steroids and other broadly acting therapies might also significantly diminish the body's ability to fight infection,

since these drugs suppress CD4 and CD8 T cells, which are one of the body's important lines of defence against viruses and other pathogens. Thus, a combination therapy, such as an IL-6 inhibitor that does not completely suppress the immune system, along with an antiviral drug that directly targets the virus may prove to be a future hope to target the SARS-CoV-2.

Studies are also being done to evaluate drugs that target the immune system, such as anakinra, which targets IL-1, and may provide a way to reduce specific immune responses without hampering the CD4 and CD8 T cells. However, leading experts are of the opinion that "The only responsible way is to use them in the context of a randomized clinical trial; there's no other way to know if a treatment is working."

Reference:

Ledford, 2020. [How does COVID-19 kill? Uncertainty is hampering doctors' ability to choose treatments](#) Nature News

Summary by Gurpreet Kaur