

Cytokine storm and colchicine potential role fighting SARS-CoV-2 pneumonia

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April 28, 2020

Abstract

For some patients with SARS-CoV-2, the worst clinical damage is not caused by the virus itself, but by an overactive inflammatory state. In fact, in some people the immune system goes into overdrive and launches a large-scale assault on the tissue known as cytokine storm. This excessive immune reaction can damage tissue and eventually kill people. Evidence shows that blocking such cytokine storms can be effective, so trials are underway to test drugs that act by reducing the cytokine response, such as tocilizumab and sarilumab that bind interleukin 6 (IL-6), or anakinra that is interleukin 1 (IL-1) receptor antagonist. However, other drugs that block the cytokine cascade may also be considered. In this article we describe the scientific and molecular motivation for the use of drugs that act by modulating the inflammatory system in patients affected by SARS-CoV-2, considering in particular an old drug that has been in use for many years for other therapeutic indications such as colchicine, and that could result favorable its use, with low cost and good tolerability.

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