Online Supplement

Glucocorticoids have been widely used in the treatment of SARS but the evidence for a positive impact is lacking. For patients with Influenza and MERS there is evidence of increased risk. Some authors advocate their use in patients in stages 2b or 3 of COVID-19 in order to slow hyperinflammatory response, while WHO and CDC advise against routine use.[1]Currently there are no specific evidence-based medical treatments available to clinicians. Treatments designed for other viral infections are administered based on limited in vivo and in vitro data as part of ongoing clinical trials or compassionate use programs. None of these substances should routinely be used.

Hydroxychloroquine is a common antimalarial drug. The data concerning it's efficacy in the current pandemic have been controversial. Inhibition of SARS-CoV2 in vitro was suggested, unpublished preliminary clinical data showed heterogenous results concerning influence on disease duration.[2,3] While availability is good, use should be limited to trials, especially considering the potential adverse cardiac effects of QTc-prolongation and arrhythmia.[4]

Lopinavir-ritonavir is a combination of protease inhibitors commonly used in the treatment of HIV. There appears to be some activity against MERS-CoV and SARS-CoV Virus in preclinical studies. A randomized trial in patients with severe COVID-19 failed to show a clinical benefit.[5]

Remdesivir is an antiviral nucleotide prodrug with activity against a number of RNA Viruses including Ebola Virus, SARS- and MERS-CoV and SARS-CoV2[6] in preclinical studies. Compassionate use has led to a number of case series, [7]while randomized trials are under way.

The use of plasma from completely recovered patients to treat severely ill patients with SARS has been proposed to lower mortality and to shorten hospital stay.[8] The same principle is being explored for COVID-19 patients in clinical trials or through emergency use protocols with some early encouraging results.[9,10]

ACE-Inhibitors lead to an upregulation of AT2 receptors and there has been speculation whether ACE-Inhibitors may negatively impact COVID-19 patients.[11] As no clear evidence concerning this has emerged we would advise to continue current usage.

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