Can two FDA-approved drugs be re-purposed to clear SARS-CoV-2 infection?



A pre-peer reviewed article from a group in Japan found that the combination of FDA-approved drugs, Nelfinavir (NFV, a protease inhibitor) and Cepharanthine (an anti-inflammatory) showed a synergistic inhibition of SARS-CoV-2 replication in vitro. Additional studies have suggested that Cepharanthine (CEP) targets both SARS-CoV-2 entry and viral replication. The authors used a mathematical prediction model to assess the impact of NFV and CEP on SARS-CoV-2 viral dynamics and to calculate the putative time period to reduce viral load to below detection. The authors show that "co-administering NFV (oral) and CEP (intravenous drip) resulted in a more rapid decline in viral RNA, with undetectable levels 5.5 days earlier than non-treatment and 1.5 days earlier than NFV alone."

These findings would need to verified in the 'real-World' and how best to implement as a treatment of COVID-19 patients remains to be seen.

References:

- Ohashi et al., <u>Multidrug treatment with nelfinavir and</u> <u>cepharanthine against COVID-19</u>. BioRxiv
- Fan et al., 2020. <u>Repurposing of clinically approved</u> <u>drugs for treatment of coronavirus disease 2019 in a</u>

2019-novel coronavirus (2019-nCoV) related coronavirus model. Chinese medical journal

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