

Researchers suggest that other anti-malarial therapies could succeed where hydroxychloroquine failed for COVID-19

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An international group of researchers believe there is enough evidence that anti-malarial drugs could be repurposed to treat COVID-19 and that they should be assessed for efficacy in clinical trials. The review article, published online in *Trends in Parasitology*, outlines the evidence for the antiviral and anti-inflammatory properties of certain anti-malarial drugs that could play a role in tackling COVID-19.

The research group, from institutions across Europe, Asia and Africa, point to a combination of the drugs artesunate and pyronaridine as the most promising.

Both drugs have demonstrated antiviral effects on the SARS-CoV-2 virus in human lung cells in laboratory studies and pyronaridine is more potent than hydroxychloroquine in these tests. Artesunate also has anti-inflammatory effects and could work in a similar way to dexamethasone, which has been shown to improve survival in hospitalized

COVID-19 patients receiving oxygen. And artesunate use doesn't incur the same risk of adverse effects as dexamethasone.

These drugs are both inexpensive and have a well-known safety profile, meaning they could be trialed in symptomatic patients with a confirmed COVID-19 diagnosis with minimal risk. They could also easily be manufactured at scale.

The researchers hope that, with funding, it would be possible to test this combination in robust [clinical trials](#), evaluating the efficacy of the drugs in non-hospitalized patients with COVID-19.

The review article also acknowledges the risks of overpromising the potential of these drugs and stresses the importance of avoiding the issues and increased attention that surrounded the use of hydroxychloroquine earlier in the year.

Lead author on the paper and Professor of Molecular Parasitology and Medicine at St George's, University of London, Sanjeev Krishna said: "There is a huge need to reduce the risk of disease progression and hospitalization in people diagnosed with COVID-19. Improvements in treatment at the onset of symptoms could have a great benefit on easing the burdens on healthcare systems globally.

"This review highlights our approach to the use of drugs for treating malaria to assess the part they could play in beating coronavirus. It's still too early to say whether these drugs will be effective, but the right signs in the laboratory are there. We now need to kickstart clinical trials in patients with COVID-19 to see if these drugs can improve outcomes and help people overcome their diagnosis more quickly and without the need for more intensive treatment."

More information: Sanjeev Krishna et al.
Repurposing antimalarials to tackle the COVID-19
pandemic, *Trends in Parasitology* (2020). DOI:
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