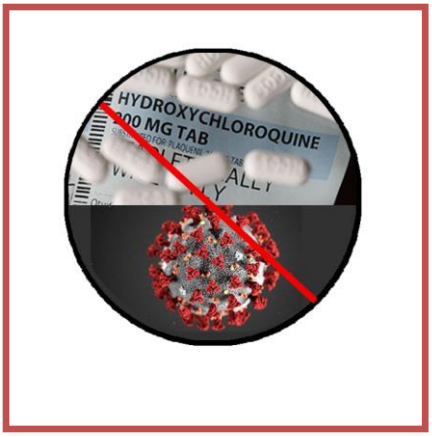
Global urge to halt in prescribing hydroxycholoroquine for COVID-19-

A Systemic review



Researchers from Florida Atlantic University's Schmidt College of Medicine and collaborators recommend a moratorium on the prescription of chloroquine or hydroxychloroquine, with or without azithromycin, to treat or prevent COVID-19, with the exceptions of obtaining the necessary evidence in randomized trials as well as compassionate use.

On March 28, the U.S. Food and Drug Administration (FDA) issued an emergency use authorization for chloroquine and hydroxyl chloroquine for the treatment of COVID-19. By April 24, however, the FDA issued a drug safety communication warning regarding hydroxycholoroquine.

Further, the authors point out that the reassuring safety profile of hydroxychloroquine may be more apparent than real. The data on safety derive from decades of prescriptions by health care providers, primarily for their patients with lupus and rheumatoid arthritis, both of which are of greater prevalence in younger and middle age women, whose risks of fatal heart outcomes due to hydroxychloroquine are reassuringly very low. In contrast, the risks of hydroxychloroquine for patients with COVID-19 are significantly higher because fatal cardiovascular complications due to these drugs are so much higher in older patients and those with existing heart disease or its risk factors.

In basic research, hydroxychloroquine and chloroquine are structurally related and have similar mechanisms to inhibit the virus that causes COVID-19. Despite their structural similarities, in vitro, hydroxychloroquine appears to be more effective. In addition, when used for lupus and rheumatoid arthritis, hydroxychloroquine has fewer side effects, less drug interactions and is less toxic in overdose. The authors note that the currently available evidence is restricted to eight published studies, five on hydroxychloroquine alone; two on hydroxychloroquine plus azithromycin; and one on both in combination or alone. Of these only three are randomized trials that enrolled 225, 62, and 30 patients - all too small to provide reliable evidence. All three tested hydroxychloroquine alone versus standard of care in China. One showed no significant difference in viral clearance at 28 days, the second, no difference in viral clearance at seven days, and the third, some improvements in fever, cough and chest computed tomography findings.

"With respect to hypothesis testing, only large-scale randomized trials of sufficient size, dose and duration can reliably detect the most plausible small-to-moderate effects, which can have enormous clinical and public health impacts.

***Reference:**

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