Study finds hydroxychloroquine reduces in-hospital COVID-19 mortality

August 25 2020

Credit: CC0 Public Domain

An Italian observational study contributes to the ongoing debate regarding the use of hydroxychloroquine in the current pandemic. The research, conducted on 3,451 patients treated in 33 hospitals throughout the Italian territory (list of participating centers attached), shows that the use of this drug reduces by 30% the risk of death in hospitalized patients

affected by COVID-19.

Published in the *European Journal of Internal Medicine*, the study was coordinated by the Department of Epidemiology and Prevention of the I.R.C.C.S. Neuromed, Pozzilli, in collaboration with Mediterranea Cardiocentro, Naples, and the University of Pisa, with the participation of 33 hospitals forming the CORIST collaboration (COVID-19 RISk and Treatments). Researchers analysed data regarding current and previous diseases, therapies followed before the infection and drugs administered in the hospital specifically for the treatment of COVID-19. All this information was compared with the evolution and the final in-hospital outcome of the infection.

"We observed—explains Augusto Di Castelnuovo, epidemiologist at the Neuromed Department of Epidemiology and Prevention, currently at Mediterranea Cardiocentro in Naples—that patients treated with hydroxychloroquine had a 30% lower in-hospital mortality rate compared to those not receiving this treatment. Our data were subjected to extremely rigorous statistical analysis, taking into account all the variables and possible confounding factors that could come into play. The drug efficacy was evaluated in various subgroups of patients. The positive results of hydroxychloroquine treatment remained unchanged, especially in those patients showing a more evident inflammatory state at the moment of admission to the hospital."

"While waiting for a vaccine, dentifying effective therapies against COVID-19 is an absolute priority," says Licia Iacoviello, Director of the Department of Epidemiology and Prevention at Neuromed and professor of Public Health at the University of Insubria at Varese. "We hope that our research will make an important contribution to the international debate on the role of hydroxychloroquine in the treatment of hospitalized patients for coronavirus. Further observational studies and ongoing clinical tials will of course be needed to better assess the role of

this drug and the most appropriate administration methods. However, data from the CORIST collaboration support the use of hydroxychloroquine. At variance with some studies carried out in other countries, where efficacy of the drug was not observed, it is interesting to note that the doses of hydroxychloroquine adopted in Italy (200 mg, twice a day) are lower than the ones used in those researches."

"In past months, the World Health Organization recommended a stop to the use of hydroxychloroquine on the basis of an international observational study, subsequently retracted. Now the new data from the CORIST study, resulting from a 'real life' national collaboration, might help health authorities better clarify the role of this drug in the treatment of COVID-19 patients," says Giovanni de Gaetano, President of Neuromed.

More information: Augusto Di Castelnuovo et al, Use of hydroxychloroquine in hospitalized COVID-19 patients is associated with reduced mortality: Findings from the observational multicentre Italian CORIST study, *European Journal of Internal Medicine* (2020). DOI: 10.1016/j.ejim.2020.08.019

Provided by Istituto Neurologico Mediterraneo Neuromed I.R.C.C.S.