Major scientific breakthrough to treat COVID-19

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UPDATE: COLCORONA study manuscript is now available in the public domain.

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On January 22, 2021, the Montreal Heart Institute announced positive results from COLCORONA trial. These results showed that colchicine is the only effective oral medication for treating non-hospitalized patients.

The study results have shown that colchicine has reduced by 21% the risk of death or hospitalizations in patients with COVID-19 compared to placebo. This result obtained for the global study population of 4488 patients approached statistical significance. The analysis of the 4159 patients in whom the diagnosis of COVID-19 was proven by a naso-pharyngeal PCR test has shown that the use of colchicine was associated with statistically significant reductions in the risk of death or hospitalization compared to placebo. In these patients with a proven diagnosis of COVID-19, colchicine reduced hospitalizations by 25%, the need for mechanical ventilation by 50%, and deaths by 44%. This major scientific discovery makes colchicine the world’s first oral drug that could be used to treat non-hospitalized patients with COVID-19.

“Our research shows the efficacy of colchicine treatment in preventing the ‘cytokine storm’ phenomenon and reducing the complications associated with COVID-19,” said Dr. Jean-Claude Tardif, Director of the MHI Research Center, Professor of Medicine at the Université de Montréal and Principal Investigator of the COLCORONA trial. “We are pleased to offer the first oral medication in the world whose use could have a significant impact on public health and potentially prevent COVID-19 complications for millions of patients.”

Treating patients at risk of complications with colchicine as soon as the diagnosis of COVID-19 is confirmed by PCR reduces their risk of developing a severe form of the disease and, consequently, reduces the number of hospitalizations. Prescribing colchicine to patients could help alleviate the problems of hospital congestion and reduce healthcare costs here and around the world.

“Our innovative research program also proves that the Montreal Heart Institute can make rapid scientific breakthroughs in a way that is economically viable for patients by repurposing existing drugs,” continued Dr. Jean-Claude Tardif.

COLCORONA is a contact-less, randomized, double-blind, placebo-controlled clinical trial that took place at home. It has been conducted in Canada, the United States, Europe, South America and South Africa. It was designed to determine whether colchicine could reduce the risk of severe complications associated with COVID-19. COLCORONA was conducted among approximately 4,500 COVID-19 patients not hospitalized at the time of enrollment, with at least one risk factor for COVID-19 complications. This is the world’s largest study testing an orally administered drug in non-hospitalized patients with COVID-19.

COLCORONA was coordinated by the Montreal Heart Institute’s Montreal Health Innovations Coordinating Center (MHIICC), and funded by the Government of Quebec, the National Heart, Lung, and Blood Institute of the U.S. National Institutes of Health (NIH), Montreal philanthropist Sophie Desmarais, and the COVID-19 Therapeutics Accelerator, an initiative launched by the Bill & Melinda Gates Foundation, Wellcome and Mastercard. CGI, Dacima and Pharmascience of Montreal were also collaborators in the trial.

The Montreal Heart Institute and its global partners would like to warmly thank the participants and researchers for their collaboration in the COLCORONA clinical trial.