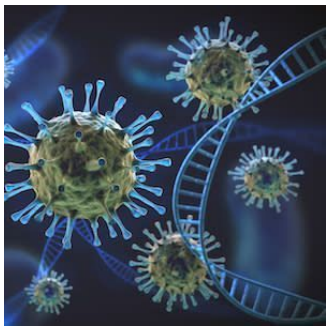
ICU
MANAGEMENT & PRACTICE

COV-AID Trial: Effect of Anti-Interleukin Drugs in COVID-19



The coronavirus infection continues to cause significant morbidity and mortality. COVID-19 is a new illness, and clinicians are still trying to find the most effective treatment strategies. Interleukin (IL)-1 and IL-6 blockade have been proposed as one possible option. However, study results so far are conflicting.

COV-AID, a prospective, multicentre, open-label, randomised controlled trial, was conducted to study whether the blockade of IL-6 or IL-1 pathway shortened the time to clinical improvement in patients with COVID-19, hypoxic respiratory failure and signs of systemic cytokine release syndrome. Sixteen hospitals in Belgium participated in the study. Study patients had a proven diagnosis of COVID-19 with symptoms between 6 and 16 days, a PaO_2:FiO_2 of less than 350 mm Hg on room air or less than 280 mm Hg on supplemental oxygen, and signs of a cytokine release syndrome in their serum.

During the first randomisation, patients were assigned to receive subcutaneous anakinra once daily (100 mg) for 28 days or until discharge, or no IL-1 blockade. During the second randomisation, patients received a single dose of siltuximab intravenously, or a single dose of tocilizumab intravenously, or no IL-6 blockade.

The primary outcome of the study was the time to clinical improvement, defined as the time from randomisation to an increase in at least two points on a 6-category ordinal scale or to discharge from the hospital alive. Safety was also assessed.

Findings show that the median time to clinical improvement was 12 days in the IL-1 blockade group versus 12 days in the no IL-1 blockage group. The estimated median time to clinical improvement in the IL-6 blockade group was 11 days versus 12 days in the no IL-6 blockage group. A total of 55 patients died during the study, but there was no significant difference in mortality between the treatment groups. Serious adverse events and serious infections were also similar across the study groups.

These findings suggest that drugs targeting IL-1 or IL-6 did not shorten the time to clinical improvement in patients with COVID-19, hypoxic respiratory failure, low SOFA score and low baseline mortality risk.

Source: The Lancet

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Published on : Tue, 2 Nov 2021