Title:

Abatacept, Cenicriviroc, or Infliximab for Treatment of Adults Hospitalized With COVID-19 Pneumonia: A Randomized Clinical Trial.

Source: *JAMA. 330(4):328-339, 2023 07 25.*

Status: *MEDLINE*

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Comments: Comment in (CIN)

Abstract:

Importance: Immune dysregulation contributes to poorer outcomes in COVID-19.

Objective: To investigate whether abatacept, cenicriviroc, or infliximab provides benefit when added to standard care for COVID-19 pneumonia.

Design, Setting, and Participants: Randomized, double-masked, placebo-controlled clinical trial using a master protocol to investigate immunomodulators added to standard care for treatment of participants hospitalized with COVID-19 pneumonia. The results of 3 substudies are reported from 95 hospitals at 85 clinical research sites in the US and Latin America. Hospitalized patients 18 years or older with confirmed SARS-CoV-2 infection within 14 days and evidence of pulmonary involvement underwent randomization between October 2020 and December 2021.

Interventions: Single infusion of abatacept (10 mg/kg; maximum dose, 1000 mg) or infliximab (5 mg/kg) or a 28-day oral course of cenicriviroc (300-mg loading dose followed by 150 mg twice per day).

Main Outcomes and Measures: The primary outcome was time to recovery by day 28 evaluated using an 8-point ordinal scale (higher scores indicate better health). Recovery was defined as the first day the participant scored at least 6 on the ordinal scale.

Results: Of the 1971 participants randomized across the 3 substudies, the mean (SD) age was 54.8 (14.6) years and 1218 (61.8%) were men. The primary end point of time to recovery from COVID-19 pneumonia was not significantly different for abatacept (recovery rate ratio [RRR], 1.12 [95% CI, 0.98-1.28]; P = .09), cenicriviroc (RRR, 1.01 [95% CI, 0.86-1.18]; P = .94), or infliximab (RRR, 1.12 [95% CI, 0.99-1.28]; P = .08) compared with placebo. All-cause 28-day mortality was 11.0% for abatacept vs 15.1% for placebo (odds ratio [OR], 0.62 [95% CI, 0.41-0.94]), 13.8% for cenicriviroc vs 11.9% for placebo (OR, 1.18 [95% CI 0.72-1.94]), and 10.1% for infliximab vs 14.5% for placebo (OR, 0.59 [95% CI, 0.39-0.90]). Safety outcomes were comparable between active treatment and placebo, including secondary infections, in all 3 substudies.

Conclusions and Relevance: Time to recovery from COVID-19 pneumonia among hospitalized participants was not significantly different for abatacept, cenicriviroc, or infliximab vs placebo.

Trial Registration: ClinicalTrials.gov Identifier: NCT04593940.

Publication Type: Journal Article. Research Support, N.I.H., Extramural.

Year of Publication: 2023

Link https://jamanetwork.com/journals/jama/fullarticle/2807333