

# In Response to Author: COVID-19 and T Cells: Do T Cells Really Matter?

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Dear Editor,

We appreciate Gajjala et al. for their interest in our study on T-lymphocyte/subsets in coronavirus disease-2019 (COVID-19). We feel honored to respond to their comments and clarify certain queries raised by them.

First, our study focused on T-lymphocyte subset counts in patients with COVID-19 acute respiratory failure (C-ARF). COVID-19 acute respiratory failure patients on noninvasive and invasive ventilation were categorized into the severe group and analyzed as one group.

Second, in addition to intrahospital transfers, as mentioned, we also admitted patients referred from other hospitals. In the hustle of a pandemic emergency, details of treatment received including type, dose, and duration of corticosteroids were not always mentioned on discharge summaries from other facilities. Hence, we were unable to compare trends of T lymphocytes and subsets at baseline and post-commencing corticosteroids.

Third, obtaining baseline values at the initiation of hospitalization and monitoring trends would have been ideal to understand the influence of COVID-19 infection on the T-lymphocytes and subsets. This was not practicable for the reasons mentioned earlier. However, we did note a significant negative correlation between T-lymphocyte/subsets and inflammatory marker, serum ferritin in our cohort reflecting abundant cytokine release and severity of illness. Lymphopenia is reported in patients following SARS, Middle-East respiratory syndrome (MERS), and respiratory syncytial virus (RSV) (in the pediatric age group) infections.<sup>1</sup> Reduction in T-lymphocyte/subsets in patients with severe COVID-19 is well noted.<sup>2</sup>

Fourth, a comparison between the severe versus not severe C-ARF could have strengthened our study findings on the degree of severity of lymphopenia in those with severe disease.<sup>3</sup> However, our aim was to analyze COVID-19 patients with acute respiratory failure who required ICU care and hence those without severe C-ARF who were managed on the floors were excluded.

Fifth, lymphopenia was seen in the elderly COVID-19 patients' findings similar to what we have observed.<sup>1,4</sup>

Sixth, a subgroup analysis is undergoing review.

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