

Estimated CD4+ count: Appraisal on cases with COVID-19

Dear Editor,

COVID-19 infection is an emerging novel coronavirus infection.^[1] This new infection started in China in December 2019. Now (March 7, 2020), it already causes health problem in more than 50 countries in all continents except for Antarctica. Clinically, this new infection causes acute febrile illness and severe respiratory distress might occur.^[2-4] Regarding basic laboratory investigation, decreased lymphocyte count is a hematological finding from complete blood count.^[2-4] Nevertheless, there has never reported on its effect of specific lymphocyte subsets. Here, the authors reappraised on clinical data on published data to estimate the CD4 + count in COVID-19. Based on available data on 278 cases with COVID,^[2-4] the authors performed a summative analysis on total lymphocyte count (TLC) and additional estimation of CD4 count based on the mathematical model technique.^[5] The referred mathematical model is "CD4 + count = 0.24 × TLC - 5.97."^[5] Based on summative analysis, the mean TLC is equal to 840 cells/ μ L, therefore, the derived estimated CD4+ count is equal to 195.63 cells/ μ L). Therefore, the low CD4+ count is observed, and this reflects the nature of immunodeficiency in COVID-19 infection. Further studies on immunopathological due to the new infection are recommended.

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Conflicts of interest

There are no conflicts of interest.

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