

Serum C-Reactive Protein Greater than 75 mg/dl as an Early Available Laboratory Predictor of Severe COVID-19: A Systematic Review

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Abstract

Abstract Introduction Severe COVID-19 management is still challenging. Having a laboratory factor to predict the severity of a patient's condition can be very useful in how to approach each patient. There have been studies concentrating on the correlation between serum C-reactive protein (CRP) level and COVID-19 severity but we aim to reach a threshold for CRP in disease severity determination. **Methods** We conducted a thorough search on PubMed, Web of Science and Google Scholar databases, and 323 studies were assessed for eligibility in three phases. The T-test was applied for the CRP level cutoffs. **Results** Eventually, 11 articles and 1615 patients were included in this systematic review. Our analysis evaluated combined mean, median, and standard deviation of severe patients' CRP to be respectively 73.37, 53.80 and 47.936. Based on the combined mean, 75mg/dl was suggested as an initial threshold for baseline CRP in hospitalized patients for developing severe conditions. **Conclusion** This study recommends that COVID-19 patients with on-admission serum CRP levels of 75 mg/dl and more are likely associated with severe conditions. Thus, anti-inflammatory agents and further following may be helpful in these patients.

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