

ABSTRACTS

Inflammation status in COVID-19 survivors in the recovery phase

Pragati Raghuwanshi¹, Rachna Parashar¹, Sukhes Mukherjee², Ankur Joshi³, Rajnish Joshi⁴, Himadri Singh²

¹Department of Physiology, All India Institute of Medical Sciences, Bhopal

²Department of Biochemistry, All India Institute of Medical Sciences, Bhopal

³Department of CFM, All India Institute of Medical Sciences, Bhopal

⁴Department of General Medicine, All India Institute of Medical Sciences, Bhopal

Background: The pathogenesis of the post-COVID syndrome is multifactorial, and multiple mechanisms may be involved in various clinical manifestations. Post-acute COVID-19 syndrome persists among survivors but the association of residual inflammation in COVID-19 survivors is still unknown. The literature illustrating the role of inflammatory markers (s. ferritin, IL-6, and CRP) remain unconsolidated. The purpose of this study was to evaluate the association of inflammatory markers and their role in disease severity among COVID-19 survivors. The current study aimed to estimate the concentrations of serum Interleukin-6 (IL-6), C reactive protein, and serum ferritin levels in COVID-19 survivors & correlating the different inflammatory markers with disease severity to find out the best-correlated marker.

Methods and material: This was a hospital-based comparative cross-sectional study conducted in the year 2021. Participants were enrolled under the following inclusion criteria, (i) Must have completed two weeks post-COVID recovery, (ii) must consent to participate in the study. Serum samples of participants fulfilling the inclusion criteria were subjected to analysis of inflammatory markers (CRP, Serum ferritin, and IL-6).

Between-group differences were tested using Kruskal-Wallis's rank sum test. Descriptive analysis was done by measuring central tendency in terms of median and IQR.

Results: The study enrolled 165 participants (35% females and 65.4% males). A statistically significant difference was found in inflammatory marker IL-6 ($p < 0.001$) only while CRP ($p = 0.2$) and serum ferritin ($p = 0.3$) were found to be statistically insignificant with disease severity in COVID-19 survivors.

Conclusion: IL-6 can be considered a promising predictor for assessing the inflammatory status in COVID-19 survivors with post-acute COVID-19 syndrome and can be considered for prognostic purposes. The higher the baseline values of IL-6 biomarkers, indicate the likelihood of severe infection. Increased levels of serum IL-6 in recovered patients indicate a larger extent of infection severity, implying that IL-6 can be considered an early biomarker for the prognosis of the disease.

Presented by: Pragati Raghuwanshi
SIRCON 2022 held at NCCS, Pune

DOI: 10.15305/ijir.v7i1.374