

Prevalence of hypokalemia and its correlation with hematological parameters and biomarkers of inflammation in adult COVID-19 patients in southeastern Iran, 2021-2022: a cross-sectional study

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Abstract

Background Since the COVID-19 outbreak, various studies have shown that hypokalemia is a common disorder, and it has been established that abnormalities in inflammatory biomarkers and complete blood count test (CBC) parameters are associated with the severity of the disease. So, this study investigates the association between hypokalemia and abnormalities in biomarkers of inflammation and CBC parameters, as well as the severity of COVID-19. **Methods** This single-centered cross-sectional study was conducted on 527 adult COVID-19 patients admitted to Afzalipour Hospital in Kerman, Iran, between March 2021 and March 2022. All patients had positive PCR tests, and their data was collected from electronic records. The relationship between hypokalemia and laboratory results, length of hospitalization, ICU admission, and mortality was analyzed by SPSS 27. **Results** A total of 527 COVID-19 patients with an average age of 53.6 years and an average duration of hospitalization of 7.89 days were reviewed retrospectively. Most of the patients were hospitalized in the general wards (90.5%) and recovered (89.2%). In this study, the prevalence of hypokalemia was 12%, and there was no significant correlation with demographic data or laboratory findings, including ESR, CRP, LDH, lymphocyte, and platelet counts. There was also no association between hypokalemia and length of hospitalization, ICU admission, or mortality. **Conclusion** In total, it was found that 12% of COVID-19 patients had hypokalemia, and no significant association was found between hypokalemia and demographic data, laboratory findings, duration of hospital stay, ICU admission, or mortality.

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