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Investigating COVID-19 severity based on serum levels of vascular endothelial growth factor (VEGF)

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Article

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Abstract

Introduction: COVID-19 is an acute, sometimes severe, respiratory illness caused by a novel coronavirus SARS-CoV-2.

Aims and objectives: This study aimed to investigate the severity of COVID-19 based on serum levels of vascular endothelial growth factor.

Methods: This cross-sectional study was conducted on 86 patients with COVID-19. They diagnosed using the RT-PCR test taken from the throat and nose. The patient's demographic information were extracted from patients' records. A 5-ml venous blood sample was taken from each patient. VEGF was measured with the ELISA method using the Hangzhou East biopharma VEGF ELIZA Kit.

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was higher than that of the non-severe group (2.4%) ($P=0.001$). There was a significant relationship between COVID-19 severity and the levels of LDH, neutrophil/lymph ratio, and CRP. Regarding medications, Remdesivir was used more in the severe group (70.5%) than in the non-severe group (45.2%) ($P=0.018$).

Conclusions: Although serum VEGF levels were higher in severe group than non-severe group, but the difference was not statistically significant. Therefore, these inflammatory markers can assist in the initial evaluation of COVID-19. Physicians should monitor serum levels of LDH, neutrophil/lymph ratio, and CRP when admitting COVID-19 patients.

Covid-19 Biomarkers Pneumonia

Footnotes

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