عنوان مقاله:

Relationship between Severity of Primary Lung Involvement with Erythrocyte Sedimentation Rate and Lactate Dehydrogenase in Patients with COVID-۱۹ in Yazd

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 30, شماره 140 (سال: 1401)

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خلاصه مقاله:

Background and Objective: Measurement of inflammatory markers and lactate dehydrogenase (LDH) may contribute to the evaluation of lung involvement severity. This study aimed to evaluate relationship between severity of primary lung involvement with highest level of erythrocyte sedimentation rate (ESR) and LDH in patients with COVID-۱۹. Materials and Methods: This descriptive-analytical study was conducted on ۱۲۳ patients with COVID-۱۹ in Shahid Sadoughi Hospital. Data including age, gender, ESR (mm/h), LDH (U/L), and high-resolution Computed Tomography scan (HRCT) findings and hospitalization ward were extracted from medical records. The regression model was used to determine the relation between HRCT findings with LDH and ESR. Results: Mean LDH, ESR, and HRCT findings were ۵۰۸.۴۱±۲۲۴.۶۵, ۵۲.۲۳±۲۹.۵۶, and ۳۷.۱۷± ۲۲.۱۸ respectively. A significant relation was seen between HRCT findings with highest level of LDH and ESR (P=۰.۰۰۱). A significant relation was observed between the highest levels of ESR and HRCT findings, regarding age, gender, and hospitalization wards (P<۰.۰۱). There was a significant relation between the highest level of LDH and HRCT findings regarding age group and hospitalization wards (P<۰.۰۱). Conclusion: A significant relation was seen between HRCT findings and highest levels of ESR and LDH in patients with COVID-۱۹. Therefore, it seems that assessment of laboratory findings such as LDH and ESR can be helpful as cost-effective markers instead of chest CT scan for predicting the severity of lung injury when the CT scan report is controversial. The relation between HRCT findings with LDH and ESR were affected by age and hospitalization ward. .However, more studies should be conducted in this regard

کلمات کلیدی:

COVID-۱۹, Erythrocyte sedimentation rate, High-resolution computed tomography, Lactate dehydrogenase