

The relationship between CT severity infections and oxygen saturation with outcomes in patients infected with COVID-19

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Abstract

Introduction: SARS-CoV-2 induced the novel coronavirus disease (COVID-19), which is the most important medical concern in the last century. COVID-19 affects multiple organs and causes different complications. The purpose of this study is to describe the relationship between CT severity infections and oxygen saturation with outcomes in patients infected with COVID-19.

Methods: This cross-sectional study was performed on 350 patients with COVID-19 infection admitted to Farabi Hospital, affiliated with Kermanshah University of Medical Sciences (KUMS), Kermanshah Province, Iran. Clinical and laboratory data as also CT scan involvement and blood oxygen saturation were obtained from the patient's medical records and reviewed by a trained nurse and medical doctor.

Results: Of the 350 patients, 178 (50.9%) were male, and 172 (49.1%) were female. The main age was 63.95 ± 19.58 years. The results showed no significant relationship between age, gender, and patient disease outcome. However, there was a significant relationship between lung involvement in CT scan, SpO₂, underlying diseases, and patient disease outcomes. HTN+CHF, DM, and HTN+CVA diseases were more frequent among patients. The most common symptom among the patients was fever.

Conclusion: It was concluded that the level of blood oxygen saturation (SpO₂), history of underlying diseases and symptoms of fever, shortness of breath, loss of consciousness, and intensity of conflict CT scan of the lung in patients with the disease of COVID-19, the probability of mortality it increases the risk of this disease and plays a significant role in determining the prognosis of the disease.

Keywords: COVID-19, Iran, oxygen saturation, complication, CT scan.