

البحث السابع:

Clinical and chest computed tomography features of patients suffering from mild and severe COVID-19 at Fayoum University Hospital in Egypt

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Abstract:

Background

In pandemic COVID-19 (coronavirus disease 2019), the prognosis of patients has been determined using clinical data and CT (computed tomography) scans, but it is still unclear whether chest CT characteristics are correlated to COVID-19 severity.

Aim

To explore the potential association between clinical data and 25-point CT score and investigate their predictive significance in COVID-19-positive patients at Fayoum University Hospital in Egypt.

Methods

This study was conducted on 252 Egyptian COVID-19 patients at Fayoum University Hospital in Egypt. The patients were classified into two groups: a mild group (174 patients) and a severe group (78 patients). The results of clinical laboratory data, and CT scans of severe and mild patients, were collected, analyzed, and compared.

Results

The severe group show high significance levels of CRP, alanine aminotransferase (ALT), aspartate aminotransferase (AST), creatinine, urea, ferritin, lactate dehydrogenase (LDH), neutrophil percent, and heart rate (HR) than the mild group. Lymphopenia, hypoalbuminemia, hypocalcemia, and decreased oxygen saturation (SpO₂) were the most observed abnormalities in severe COVID-19 patients. Lymphopenia, low SpO₂ and albumin levels, elevated serum LDH, ferritin, urea, and CRP levels were found to be significantly correlated with severity CT score (P<0.0001)
