

Prognostic factors for COVID-19 patients

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Abstract

Background: Determination of the prognostic factors which affects the mortality and morbidity in COVID-19 patients, has an importance in terms of planning the treatment and follow-up strategy. Material and Method: Patients who had COVID-19 diagnosis via microbiologically and/or radiologically between March and October 2020 in a tertiary-care university hospital were recorded retrospectively. Only adult patients ([?]18 years) with clinical spectrum of moderate, severe and critical illness were included in the study according to National Institutes of Health (NIH) guideline. A p value of less than 0.05 was considered significant. Ethical committee approval was given from the Uludag University with decision number 2020-22/11. Also, the permission from Republic of Turkey, Ministry of Health was given. Results: A total number of 257 patients were included in the study. 30-day mortality rate was recorded as 14.4%. In univariate analysis; age, chronic renal failure, malignancy, cerebrovascular disease, number of comorbidities >2, dyspnea, cough, NIH severe and critical illness, oxygen saturation, respiratory rate, systolic and diastolic blood pressure, qSOFA, GCS, MEWS, SOFA, CURB-65, CCI, CRP, procalcitonin, CK, D-dimer, lymphocyte and thrombocyte levels, neutrophile-to-lymphocyte ratio, AST, albumin, hemoglobin, CK-MB, fibrinogen, LDH and potassium levels were found as statistically significant ($p < 0.05$). In logistic regression analysis one point increase of SOFA ($p < 0.001$, OR:1.861, 95%CI:1.403-2.468) and CURB-65 scores ($p = 0.002$, OR:2.484, 95%CI:1.401-4.406) were found as statistically significant for 30-day mortality. In mortal patients, there were significant difference between the baseline, day 3, 7 and 14 results of D-dimer ($p = 0.01$), Ferritin ($p = 0.042$), leucocyte ($p = 0.019$) and neutrophile count ($p = 0.007$). Conclusion: In our study, SOFA and CURB-65 scores on admission were associated with mortality and these score systems might be useful tools for the prognosis in COVID-19 patients. In addition to this, D-dimer, Ferritin, leucocyte and neutrophile counts were significantly increased during the follow up in patients with mortality.

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