**Clinical and laboratory features of COVID-19: Predictors of severe prognosis**

**Introduction:**

At the end of December 20189, the world witnessed the outbreak of pneumonia due to an unknown cause in one of the big cities of China. The cause of pneumonia in this outbreak is a newly emerging virus belonging to the Coronaviridae family called SARS-CoV-2, which is probably derived from a bat coronavirus like SARS. Considering that the covid-19 virus is an emerging virus, limited studies have addressed the diagnostic and prognostic value of laboratory findings in infected patients. The supporting role of laboratory medicine goes far beyond etiological diagnosis and is now almost undeniable. The aim of this retrospective study was to evaluate blood biomarkers related to the disease, as factors to diagnose and determine the prognosis of patients with covid-19.

**Methods:**

The study was carried out using a retrospective cross-sectional descriptive method. The random sampling method was simple and readily available. 145 patients with Covid-19 who were hospitalized in the infectious department (covid) in Shahid Sadoughi Hospital in Yazd during March 2019-September 2019 were randomly selected and examined. Patient files were extracted by referring to the archives of Shahid Sadoughi Hospital and HIS system. Experiments and other required data were extracted and analyzed using SPSS software.

**Results:**

The present study was conducted on 145 patients. 50.3% of the patients were female (73 people) and 49.7% were male (72 people). The average age of the patients was 53.53 ± 16.46 years with a range of 91-16 years. 28.3% of patients had diabetes, 34.5% had hypertension, 2.8 had rheumatic disease, and 1.4 had malignancy. 9% of patients had poor prognosis and 9% were admitted to ICU. Myalgia (78.6%), cough (67.6%), shortness of breath (66.9%), anorexia (57.9%) and fever (42.8%) were the most common symptoms of the disease. Age over 45 years, high ESR, positive CRP and severe cough were determined as factors with ICU admission (P<0.05). High ESR and positive CRP were also factors related to poor prognosis (P<0.05).

**Conclusion:**

It seems that, according to the results of the present study, myalgia along with cough and shortness of breath are common symptoms of covid-19, and factors such as age over 45 years, high ESR, positive CRP, severe cough are risk factors for hospitalization in ICU and weakening the prognosis. Patients with covid-19.

**Keywords:** Infectious, Pandemic, COVID-19, Prognosis

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