Evaluation of fat profile in Covid 19 patients admitted to Imam Khomeini Hospital in Ardabil and its relationship with CRP, Ferretin and D-Dimer levels in 1399

Abstract

Background: The new acute respiratory syndrome of SARS-COV 2 has led to a new and deadly disease called coronavirus-2019 (Covid-19). Although many studies have been performed on Covid 19 patients and factors involved in the severity of the disease during these two years of Covid 19 pandemic, it seems that further studies are needed to clarify all the factors involved in influencing its severity.

Aim: The aim of the present study was to evaluate the fat profile of patients with Covid 19 admitted to Imam Khomeini Hospital in Ardabil in the first six months of 1399.

Material and methods: A cross-sectional descriptive study was performed on 300 patients in 19 patients admitted to Imam Khomeini Hospital. Demographic, clinical and laboratory findings of all patients included in the study were collected based on a questionnaire and after entering the information into 21SPSSV software, the results were analyzed using Fisher's exact test with a criterion of $P < 0.05$.

Results: In this study, 300 Covid 19 patients with a mean age of 54.57 17 17.02 and a frequency (58.7%) of male sex were included in the study. 91.3% of the patients in the study recovered and 8.7% died. The results showed that the levels of cholesterol ($P < 0.05$) and LDL ($p < 0.05$) in female patients were higher than men and were statistically significant. Also, cholesterol ($P < 0.001$) and triglyceride levels ($p < 0.01$) in patients with Covid 19 decreased with age and were statistically significant. Cholesterol levels ($p < 0.05$) in the deceased were lower and statistically significant compared to the recovered.

Conclusion : The results of the present study revealed that in patients with Covid 19 fat profiles are inversely related to disease outcome. The role of inflammatory factors and damage to various organs such as the liver is thought to affect fat metabolism in conditions associated with COVID 19, which requires further studies.

Keywords: Covid 19, triglyceride, cholesterol, LDL, HDL