Assessing clinical and laboratory findings in hemodialysis patients with COVID-19 in Imam Khomeini Hospital in Ardabil

Abstract

Background:During the 2019 coronavirus disease (COVID-19) pandemic, patients receiving hemodialysis are a highly vulnerable population due to comorbidities and conditions that limit physical distance during treatment.

Aim: This study was conducted with the aim of determining clinical and laboratory findings in hemodialysis patients with COVID-19 in Imam Khomeini Hospital, Ardabil in 2020.

Materials and methods:The present study was a retrospective cohort study. The medical records of hemodialysis patients aged 18 or older, who were admitted to Imam Khomeini (RA) Kovid-19 Hospital in Ardabil province from the beginning of April to the end of September, were examined.

Results:The results showed that the average age of the people included in the study is about 64 years. More than half (67%) of them were men. In this study, 35 hemodialysis patients (36.5%) with covid-19 died. Hypertension is the most common underlying disease associated with hemodialysis patients with covid-19 and is possibly a risk factor for covid-19. And then there was diabetes and cardiovascular disease. The main characteristics of COVID-19 in hemodialysis patients included a decrease in the number of lymphocytes, an increase in LDH, an increase in ferritin, an increase in ESR, an increase in ALT, an increase in AST, an increase in ALP, an increase in D-dimer, and an increase in BUN and Cr in the context of kidney disease. In terms of clinical symptoms, the prevalence of diarrhoea and loss of smell in recovered people was higher than in deceased people and it was statistically significant. Shortness of breath, cough, fever and fatigue were the most frequent clinical symptoms of Covid-19 respectively.

Conclusion:This study has shown that hospitalized hemodialysis patients with covid-19 had a high mortality rate. And most of them were elderly. Background diseases of hypertension, history of diabetes, history of cardiovascular disease,

levels of lymphocytes, LDH, ferritin, ESR, ALT, AST, ALP, and D-dimer during hospitalization may be used to predict the risk of mortality in these patients.

Keywords: Hemodialysis, COVID 19, laboratory findings, clinical symptoms, disease history, Imam Khomeini Hospital**.**