

# Efficacy of COVID-19 vaccination on mortality

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## Abstract

Background: In this research we aimed to demonstrate the clinical-radiological and laboratory characteristics of patients hospitalized for COVID-19 pneumonia despite having COVID-19 vaccine compared to unvaccinated patients. Materials-Methods: Patients hospitalized in the COVID-19 clinic between February 2022 and August 2022 were included in the study. Demographic, clinical features and treatment results furthermore COVID-19 vaccination status of the cases were recorded. The cases were divided into two groups as those with and without the COVID vaccination and compared respectively. Results: A total of 215 cases were included in the study, 53.5% (n=115) were vaccinated. The presence of comorbid chronic diseases and cancer was less in the unvaccinated group. The duration of hospitalization was longer in the unvaccinated group(9.6 and 7.1 days, respectively). The number of segments affected were significantly higher in the unvaccinated group(p<0.05). Patients who received high-dose glucocorticoid therapy in the unvaccinated group was higher (28 cases vs. 11 cases; p<0.001).). The 11.3% (13/115) of the patients in the vaccinated group deceased, whereas 14% (14/100) in the unvaccinated group. Vaccination was found to be an independent factor affecting mortality (p=0.034 CI: 0.108 - 0.918). Conclusion: The vaccinated cases were who were infected with COVID-19 had shorter duration of hospitalization and lower severity of radiological involvement. The requirement of pulse steroids were also less compared to unvaccinated individuals. Despite having chronic diseases and cancer, which is considered to have a significant effect on mortality in COVID-19. Additionally although the vaccinated group was older, they had similar mortality rates with unvaccinated subjects.

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