

Retrospective Vaccine Cohort of COVID-19 Patients

Ahmet DOĞAN^{1*}, Taliha KARAKÖK², Yakup GEZER³

¹ Ordu State Hospital, Department of Infectious Diseases and Clinical Microbiology, Turkey.

² Fatsa State Hospital, Department of Infectious Diseases and Clinical Microbiology, Turkey.

³ Afyon State Hospital Department of Infectious Diseases and Clinical Microbiology, Turkey

Abstract

Introduction: In the control of the COVID-19 pandemic, community immunity with vaccines is the main element.

Method: Cases who were hospitalized and followed up in the pandemic service with the diagnosis of COVID-19 for 13 months were included in the study. Those who were not vaccinated against COVID-19, those who had 1 dose of Sinovac or BioNTech vaccine, and those who had 2 doses of vaccine and had COVID-19 within 2 weeks after the second dose were included in the inadequately vaccinated group. Those who received 2 doses or more of Sinovac / BioNTech vaccine and had COVID-19 2 weeks after the 2nd dose were included in the full dose vaccine group. Mutation type of 360 cases were recorded.

Results: 44.5% of the cases were male and 55.5% were female. The mean age (Mean±SD, Min-Max) of 191 under-vaccinated cases was (58.29±15.61), while it was (72.12±12.65) of 169 full-dose vaccinated cases. The mean age ($p=0.000$), comorbid disease ($p=0.000$) was lower in the undervaccinated group. However, no significant difference was observed in ward length of stay ($p=0.562$), CO RADS score ($p=0.172$), mortality rate ($p=1.000$), and IC U admission rate ($p=0.390$). Of all cases, 44.17% were unvaccinated, 6.94% were single-dose vaccinated, 38.89% were double-dose vaccinated, and 10% were three-dose vaccinated. When the mutation status was examined, 36.11% of them were Delta mutation, 5.28% of them were British mutations and 13.33% of them were suspicious for variants. While the rate of mortality and admission to the ICU was 5.2% in the English mutation, no mortality was observed in cases with delta mutations or suspected variants. The rate of going to the ICU was 3.8% in Delta mutation and 2% in suspected variant cases.

Conclusion: According to the results of our study, COVID 19 vaccines reduce hospital admissions at young ages. However, the effect of vaccine and mutation types on prognosis was not observed in ward patients.

Keywords: COVID-19, Sinovac, BioNTech, Delta mutation, British mutation

Biography

Ahmet DOĞAN is working in Ordu State Hospital in the Department of Infectious Diseases and Clinical Microbiology, Ordu, Turkey