

Retrospective analysis of vaccination status and predominant viral variants in patients hospitalized with COVID-19 in Reus, Spain

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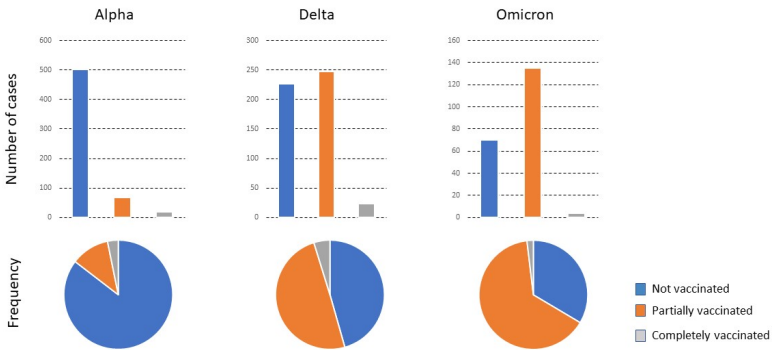
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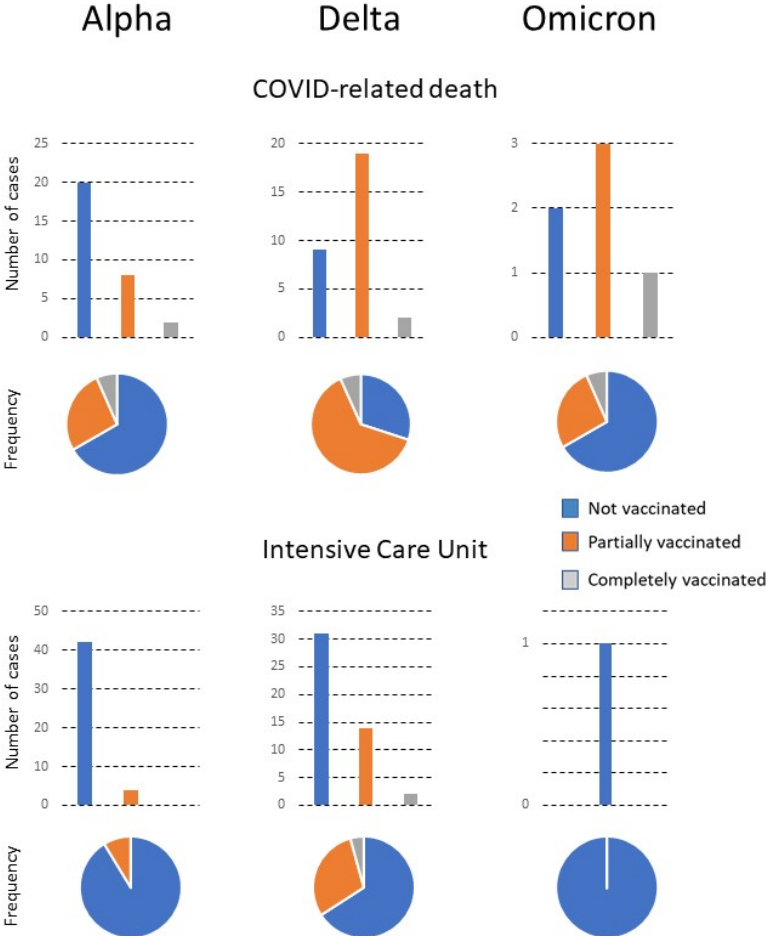
Abstract

SARS-CoV-2 infection in already-vaccinated individuals is still possible and may require hospitalization. The aim of the present study was to evaluate the clinical evolution of patients with COVID-19 admitted in a public hospital. The outcomes were assessed in relation to the predominant viral variant and the vaccination status. This retrospective study was performed on 1,295 COVID-19-positive patients who attended a 352-bed university hospital between 2021 and 2022. Clinical variables and vaccination status were recorded. Of the patients, 799 had not been vaccinated (NV, 61.7%), 449 were partially vaccinated (PV, 34.7%) and 47 were completely vaccinated (CV, 3.6%). The mean age of the CV patients was significantly higher than that of PV and NV. Also, they had higher percentages of chronic diseases. The outcomes depended on age but not on vaccination status. There were 209 patients admitted during the Omicron-infection period, from which 70 (33.5%) were NV, 135 (64.6%) PV, and 4 (1.9%) CV. In conclusion: Correct vaccination greatly reduces the risk of acquiring severe COVID-19. Partial vaccination does not guarantee protection of the population. This highlights the need for continuous vaccination promotion with all recommended doses, while investigating alternative treatments for those patients who do not respond to the vaccines.

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