

# An analysis of the statin use frequency in COVID-19 patients before admission and its associations with disease severity and recovery rate

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## Abstract

Background: The most typical signs of Covid-19 (Corona), an acute respiratory illness, include fever, coughing, exhaustion, shortness of breath, sputum, and loss of smell. Due to their anti-inflammatory and anti-thrombotic properties, statins have the potential to be useful in treating Covid-19 patients' endothelial dysfunction and uncontrolled inflammation. This study's goal was to determine the association between statin use and the severity of the disease and rate of recovery in COVID-19 hospitalized patients. Materials and Methods: In this cross-sectional descriptive study, 400 cases were randomly selected from patients admitted with Covid-19. The following factors were measured using the available information in these patient records. Furthermore, for data analysis, independent samples t-test or Mann-Whitney U test was used. Results: In this study, which was performed on 400 patients with Covid-19, the mean age of patients was  $62.81 \pm 11.78$  years. Of the patients studied, 225 (56.2%) were male and 175 (43.8%) were 175 female. 365 (91.2%) patients had an underlying disease and 372 (93%) patients were discharged from all studied patients. Out of 87 patients who had a history of statin use, 3 (4.3%) died and out of 313 patients who had no history of statin use, 25 (8%) died. Conclusion: In this study, men were more likely than women to be exposed to the coronavirus. The highest rates of statin use and coronary heart disease were likewise found in people aged 50 to 75. In patients who had previously taken statins, recovery times, hospital stays, ICU stays, and the frequency of clinical and laboratory measures were all quicker and closer to normal. Moreover, patients with a history of statin use had a lower mortality rate and a higher likelihood of recovery than other patients.

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