

Asthma is not a risk factor for the severity of SARS-CoV-2 infection in the Mexican population

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Abstract

Background. Asthma does not seem to confer a risk for developing a disease caused by 2019 novel coronavirus (COVID-19). The aim of this study was to assess the association between asthma and severity of COVID-19 in the Mexican population. **Methods.** In a cross-sectional study, we analyzed the data of the population in Mexico who underwent a test to detect COVID-19 from February 27 to June 21, 2020. The primary outcomes were hospitalization, pneumonia, endotracheal intubation, and death related to COVID-19 in patients with asthma. **Results.** Asthma was associated with a lower risk of hospitalization (OR = 0.71, 95% CI 0.66 to 0.76), lower risk of pneumonia (OR = 0.75, 95% CI 0.69 to 0.81), and lower risk of endotracheal intubation (OR = 0.79, 95% CI 0.63 to 0.98). In addition, asthma decreased the risk of dying from COVID-19 (OR = 0.73, 95% CI 0.65 to 0.82). In a subgroup analysis, the same trend was observed in patients who required hospitalization (OR = 0.79, 95% CI 0.69 to 0.90); while in non-hospitalized patients, associations were inconsistent according to the covariates introduced to the models. There was no association between asthma and death in patients admitted to the intensive care unit (ICU); however, in hospitalized patients who did not require ICU management, asthma significantly reduced the risk of dying. **Conclusion.** Our results suggest that compared to patients without asthma, patients with asthma are less likely to require hospitalization, develop pneumonia, be intubated endotracheally, or die from COVID-19.

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