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Children with Asthma and Covid-19 have Poor Asthma Control

Covid-19-positive children with asthma visited the emergency department (ED) more often for their asthma than children who tested negative for SARS-CoV-2, according to a study reported in the Journal of Allergy and Clinical Immunology. They were also hospitalized more frequently and required more steroids to control their asthma.¹

A total of 61,916 children with asthma, aged 2-17.9 years, from the Cerner Real-World Data were enrolled for the present study. These children had undergone a reverse transcription polymerase chain reaction (RT-PCR) for Covid-19 between March 2020 and February 2021. Control of asthma was assessed on the basis of prescription refill rates for oral steroids and short-acting β -agonists (SABA), emergency room visits and hospitalizations per 1,000 patients every 6 months.

Asthmatic children who also tested positive for Covid-19 had a significant increase in ED visits with incidence rate ratio (IRR) 1.17; they also refilled their oral steroid prescriptions more often (IRR 1.23) during the 6 months after their test. A small increase in hospitalizations (IRR 1.13) and use of SABAs (IRR 1.02) was also seen. But children who tested negative for the virus had fewer asthma-related hospitalizations, ED visits, oral corticosteroid (OCS) fill rates and SABA use in the 6 months after their test indicating improved

asthma control. No significant differences in ED, hospitalizations or SABA fill rates were noted in the 6 months prior to the PCR test regardless of their Covid status, whether positive or negative. Though Covid-positive children showed a small reduction in use of oral steroids compared to Covid-negative children.

This study demonstrates that children with asthma and who had Covid-19 had poor control of their asthma within 6 months of infection. According to the authors, their shows "longer lasting harm of COVID on children's asthma control."

This is the first large-scale nationwide study demonstrating a worsening of asthma 23 outcomes in children during the 6 months following a PCR-confirmed Covid-19 infection. Our data demonstrates that while asthma outcomes were again improved for those who tested negative for SARS-CoV-2 PCR, asthmatic children who were definitively diagnosed with Covid-19 have worse asthma control in the first 6 months after infection.

REFERENCE

1. Chou CC, Morpew T, Ehwerhemuepha L, et al. COVID-19 infection may trigger poor asthma control in children. J Allergy Clin Immunol Pract. 2022;10(7):1913-15.

