

Childhood Asthma outcome during the COVID-19 Pandemic:

findings from the PeARL multinational cohort.

Papadopoulos NG et al. Allergy . 2021 Feb 20

Objective: To evaluate the impact on COVID-19 pandemic on childhood asthma outcomes.**Study Type:** Cross-sectional Case-control study.**Study Design:** The PeARL (Pediatric Asthma in Real Life) multinational cohort included children with asthma and non-asthma controls recruited during COVID-19 pandemic and compared current disease activity with data available from the previous year.**Study Population:** 1054 children with asthma and 505 children with non asthma controls were included, aged between 4-18 years, from 25 departments including 15 countries.**Outcomes:** Primary objective was to assess the differences in the impact of the pandemic on the frequency of the upper respiratory tract infections, lower respiratory tract infections, episodes of pyrexia, emergency visits & hospital admissions in asthmatics vs controls.

Secondary objectives were (i) to compare the frequency of asthma attacks in children with asthma during the pandemic to the previous year (2019) and (ii) impact of the pandemic on disease control, using validated questionnaires (ACT, c-ACT, ACQ, CASI), compared to 2019.

ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



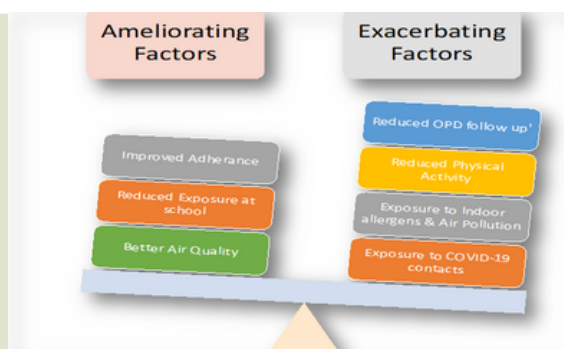
Asthma Outcome in Children during COVID 19 Pandemic

Results: The frequency of the lower respiratory tract infections, episodes of pyrexia, emergency visits & hospital admissions in asthmatics were not increased compared to controls.

During the pandemic children with asthma experienced fewer respiratory infections, episodes of pyrexia, asthma attacks, emergency visits & hospital admissions compared to the previous year (2019).

Assessment of control using validated asthma questionnaires showed an unchanged or improved control in 90% children, while 66% had improved asthma control.

Lung functions parameters: Pre-bronchodilator FEV1 and PEFr showed improvement compared to previous year.

**Conclusions and Key Messages:** Overall analysis of the PeARL asthma cohort revealed an improved health and asthma activity during the COVID-19 pandemic. Children with asthma did not show an increase in the frequency of acute attacks, refuting the hypothesis that childhood asthma is a risk factor for COVID-19.

EXPERT COMMENT

“Interplay between COVID-19 & Asthma is complex with many factors contributing to exacerbating and ameliorating the disease. Overall data does not suggest a higher rate of COVID-19 in children with asthma or a more severe disease in children with asthma. A cautious approach is recommended till the pandemic ends.”

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With warm regards,

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Reference

Papadopoulos NG, Mathioudakis AG, Custovic A, Deschildre A et al. PeARL collaborators; PeARL Think Tank. Childhood asthma outcomes during the COVID-19 pandemic: Findings from the PeARL multi-national cohort. Allergy. 2021 Feb 20. doi: 10.1111/all.14787. Epub ahead of print. PMID: 33608919.

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