Lung (2021) 199:435–436
https://doi.org/10.1007/s00408-021-00459-1

LETTER TO THE EDITOR

Letter to the Editor: Regarding COVID-19 in Children with Asthma

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Received: 18 June 2021 / Accepted: 12 July 2021 / Published online: 11 August 2021

To the Editor,

I have read the original article by Chatziparasidis et al. entitled to 'COVID-19 in Children with Asthma' with great interest [1]. I have several comments/concerns on this review article.

Firstly, the authors advocate that children have a milder course of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection than adults because of less overactivation of the innate and adaptive immune systems and the less likely initiation of cytokine storm. If so, how do they explain multisystem inflammatory syndrome (MIS-C) development in some children with COVID-19 by means of this puzzling and unclear etiopathogenesis mentioned in the article?

Secondly, the authors mentioned a survey exploring data from 147 centers that found 49 asthmatic children who tested positive for SARS-CoV-2. In that study [2], although all children were admitted, 29 required no treatment, 19 received supplemental oxygen, and only 4 patients required mechanical ventilation and were admitted to the pediatric intensive care unit (PICU). When they try to explain the reason for 4 PICU admissions through citing the original article [2], tree pollen exposure is held responsible for the real cause in the PICU admissions with SARS-CoV-2 infection being coincidental. However, Chatziparasidis et al. [1] constantly say in the manuscript that asthma patients with allergic phenotype (e.g., allergic to tree pollens), compared to nonallergic patients, have a milder course and lower risk of severe COVID-19 development. Therefore, those 4 patients should not have admitted to the PICU due to pollen exposure, because allergic inflammation would have prevented them being admitted to PICU. Is this not a very conflicting explanation for those 4 PICU-admitted patients?

Thirdly, in the conclusion of the article by Moeller et al., the authors also state that in children with asthma, SARS-CoV-2 infection was well tolerated, but a substantial minority of children with BPD and other conditions required ventilatory support. As I understood, Moeller et al. tried to explain the severity of COVID-19 by the existence of other co-morbid conditions [2]. I think that the authors should clarify this issue.

Fourthly, the cited article (Moeller A. et al., #44) in the references also seemed to be an article on review process, not an accepted one [2]. The title of this article by Moeller et al. in the Pubmed now looks as '…. survey results from 174 centers' not 147 centers [2]. Is this a typographical error?

Fifthly, there is one more typesetting error in the sentence of 'The exact way in which SARS-CoV-19 behaves in asthmatic…' on page 9 as well. SARS-CoV-19 is used instead of SARSCoV-2.

Finally, I agree with the authors that it is uncertain whether we truly comprehend the entire etiopathogenesis of the clinical presentation of COVID-19 in asthmatic children. Further basic and clinical studies are required to elucidate some other facts in these asthmatic children.

Funding None.

Declarations

Conflict of interest The author declares no conflict of interest.

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2. Moeller A, Thanikkel L, Duijts L et al (2020) COVID-19 in children with underlying chronic respiratory diseases: survey results from 174 centres. ERJ Open Res 6(4):00409–02020. https://doi.org/10.1183/23120541.00409-2020