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Title: COVID 19 and Allergy in Pediatrics

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Letter to the Editor

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a novel coronavirus and highly contagious that affects all age groups such as children. Any age, including infancy, could be affected by the pandemic. More than 210 countries have been affected by now. Clinical manifestations are variable (asymptomatic to severe pneumonia) in children (1). Allergic diseases are common and increasing all over the world. Asthma is the most common non-communicable allergic disease among children (2).

There was no difference between allergic and non-allergic COVID-19 among children in the incidence, clinical features, and laboratory and immunological findings. Allergy was not a risk factor for developing and severity of SARS-CoV-2 infection and hardly influence the COVID-19 disease course in children (1). Allergic conditions are not an increased risk factor for severe diseases and usually show a mild course. However, severe or uncontrolled asthma is an increased risk of developing more severe COVID-19 (3-5). Patients with allergic disorders such as asthma, allergic rhinitis, and atopic dermatitis should be continuing their prescribed drugs such as inhaled and intranasal corticosteroid, long-acting bronchodilators, and anti-leukotriene drugs (even oral corticosteroids) (3-5).

Biological drugs could be continuing exception during the acute phase of COVID-19 infection. Spirometry should be avoided in patients with confirmed or suspected cases of COVID-19. In special conditions with the use of a disposable filter, instrument sterilization, and personal protective equipment, spirometry can be done (5, 6). Sublingual and subcutaneous immunotherapy can be continued in asymptomatic patients, negative real-time PCR (RT-PCR), or after adequate quarantine. They should be discontinued in symptomatic or positive RT-PCR COVID 19 (7). The main treatment of COVID 19 is supportive care and no vaccines or specific antiviral treatments are available so far (8,9). The World Health Organization (WHO) and the European Centre for Disease Control (ECDC) recommended continuing treatment of other diseases according to guidelines in patients at risk or affected by COVID-19. Of course, there should not be interference with treatment with COVID-19 or vice versa (10).

Footnotes

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References

1. Du H, Dong X, Zhang JJ, Cao YY, Akdis M, Huang PQ, Chen HW, Li Y, Liu GH, Akdis CA, Lu XX, Gao YD. Clinical characteristics of 182 pediatric COVID-19 patients with different severities and allergic status. *Allergy*. 2020 Jun 10;10.1111/all.14452. doi: 10.1111/all.14452. Epub ahead of print. PMID: 32524611; PMCID: PMC7307120.
2. Ghaffari J, Aarabi M. The prevalence of pediatric asthma in the Islamic Republic of Iran: a systematic review and meta-analysis. *J Pediatr Rev*. 2013;1:2–11.
3. Zhang JJ, Dong X, Cao YY, Yuan YD, Yang YB, Yan YQ, et al. Clinical characteristics of 140 patients infected with SARS-CoV-2 in Wuhan, China. *Allergy*. 2020;75(7): 1730-41. doi: 10.1111/all.14238.
4. Bousquet J, Akdis C, Jutel M, Bachert C, Klimek L, Agache I, et al. ARIA-MASK study group. Intranasal corticosteroids in allergic rhinitis in COVID-19 infected patients: An ARIA-EAACI statement. *Allergy*. 2020 Mar 31. doi: 10.1111/all.14302. Epub ahead of print. PMID: 32233040.
5. Cardinale F, Ciprandi G, Barberi S, Bernardini R, Caffarelli C, Calvani M, et al. Consensus statement of the Italian society of pediatric allergy and immunology for the pragmatic management of children and adolescents with allergic or immunological diseases during the COVID-19 pandemic. *Ital J Pediatr* 2020;46(1):84. <https://doi.org/10.1186/s13052-020-00843-2>
6. Ghaffari J, Dabbaghzadeh A, Ghaffari N. COVID-19 and asthma; What comments we need to know?. *Chronic Diseases Journal* 2020; 8(2):94-8. ISSN eISSN: 2345-2226. Available at: <http://cdjournal.muk.ac.ir/index.php/cdj/article/view/517>.
7. Klimek L, Jutel M, Akdis C, Bousquet J, Akdis M, Bachert C, et al; ARIA-MASK Study Group. Handling of allergen immunotherapy in the COVID-19 pandemic: An ARIA-EAACI statement. *Allergy*. 2020;75(7):1546-54. doi: 10.1111/all.14336. PMID: 32329930; PMCID: PMC7264744.
8. Shaker MS, Oppenheimer J, Grayson M, Stukus D, Hartog N, Hsieh EWY, et al. COVID-19: Pandemic Contingency Planning for the Allergy and Immunology Clinic. *J Allergy Clin Immunol Pract*. 2020;8(5):1477-88.e5. doi: 10.1016/j.jaip.2020.03.012. Epub 2020 Mar 26. PMID: 32224232; PMCID: PMC7195089.
9. Brindisi G, De Vittori V, De Castro G, Duse M, Zicari AM. Pills to think about in allergic rhinitis children during COVID-19 era. *Acta Paediatrica*. 2020. doi:10.1111/apa.15462 .
10. Pfaar O, Klimek L, Jutel M, Akdis C, Bousquet J, Breiteneder H, et al. COVID-19 pandemic: Practical considerations on the organization of an allergy clinic – an EAACI/ARIA Position Paper. *Allergy*. 2020; doi:10.1111/all.14453.