

Review of: "Influence of allergy, asthma treatment (AT) and eviction diet (ED) on sleep-disordered breathing (SDB) in pediatric asthma associated with OSA, increased respiratory effort (RE) during sleep and overweight/obesity: a study in 78 children"

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Potential competing interests: No potential competing interests to declare.

REVISION: *Influence of Allergy, Asthma Treatment(AT) and Eviction Diet(ED) on Sleep-Disordered Breathing(SDB) in Pediatric Asthma Associated With Osa, Increased Respiratory Effort(RE) During Sleep and Overweight/Obesity: a Study in 78 Children*

The authors present a work that aimed to study the polygraphy/polysomnography profile of children suffering Obstructive Sleep Apnoea-asthma associated and the influence of allergies and asthma treatment/eviction diet upon apnoea hypopnea index, respiratory effort and body mass index to diagnose, treat and prevent paediatric Obstructive Sleep Apnoea-asthma associated and related obesity. Indeed, the evaluation of the main allergies leading to OSA-asthma along with the effect of asthma/allergy treatments on AHI/RE/BMI could give useful information to better understand the complex pathophysiology of paediatric Obstructive Sleep Apnoea and stimulate the awareness of asthma-associated cases.

The article evaluates a clinically relevant topic and the results are significant. Please consider these suggestions to improve the manuscript:

- In the conclusion, authors write about "orthodontic complications". However, very little is explained in the article about the dento-facial characteristics and respective orthodontic treatments of children with OSA. Authors may consider introducing this aspect in the discussion part (Savoldi F, Fung KK, Mak WS, Kan EY, Yang Y, Kwok KL, Gu M. Are the severity of obstruction and the apnea-hypopnea index related to orofacial anatomy in children with obstructive sleep apnea? a kinetic MRI study. *Dentomaxillofac Radiol.* 2023 Jul;52(5):20220422. doi: 10.1259/dmfr.20220422).
- In the discussion, authors write that "The fact that RE decreased in children following AT showed that the RE is an effective way to identify the preschool children suffering from OSA-asthma-associated", but it is also possible to have high RE for reasons other than asthma. Further specifications are suggested in order to draw the conclusion that OSA was asthma-associated.
- Author say that "We effectuated a cross-sectional/case controls diagnostic cohort" but they also mention "The prospective, observational, and diagnostic nature of our study helped to reach useful conclusions". I am not sure if they were referring to different parts of the study, but it seems that there is a contradiction in saying that the study is both

“cross-sectional” and “prospective”. Please clarify, it’s just about the definition of the study design.