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Letter to the Editor

To the Editor



To the Editor

We are grateful to Dr. Ucros-Rodriguez for his letter commenting on our work and sharing a common interest in the effects of high altitude on sleep in children. We would like to clarify the concerns raised about our recent study [1].

We agree with Dr. Ucros-Rodriguez that in children living at high altitudes the presence of an elevated central apnea-hypopnea index (CAHI) does not always correspond to an underlying pathologic disease that needs to be studied and/or treated. Periodic breathing (PB) at altitude is a physiologic response to hypobaric oxygen and central sleep apneas can be observed in most normal children living at high altitudes [2]. However, we respectfully disagree about the proposed approach for scoring central apneic events. According to the American Academy of Sleep Medicine (AASM) [3], the CAHI is calculated as the number of central episodes per hour of total sleep time. There is no explicit mention about discounting the number of apneic events associated with PB. For this reason, we did not exclude these data from our analyses. Furthermore, although unfortunately one eligible study [4] was missed in our systematic review, its exclusion did not significantly affect the predictive ability of our equations (data not shown).

The aim of our study was to develop predictive models to determine the normal/expected CAHI in healthy children. This approach may be used to identify children with CAHI values outside of the range expected for the physiologic effects of age and altitude above sea level, regardless of whether they were associated with PB or not. Although we acknowledge the limitations of using current CAHI and PB definitions at high-altitude, we feel our results may contribute to optimize testing and treatment of hypoxia, reoxygenation, apnea, and arousals, all of which are increasingly recognized in children living at high altitudes [5].

Conflict of interest

None.

The ICMJE Uniform Disclosure Form for Potential Conflicts of Interest associated with this article can be viewed by clicking on the following link: <https://doi.org/10.1016/j.sleep.2021.05.017>.

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12 May 2021

Available online 24 May 2021