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Letter to the Editor

Response: Continuous positive airway pressure ventilation does correct nasal inflammation in patients with obstructive sleep apnea syndrome

To the Editor:

We thank Drs. Esquinas and Ferrari for their interest in our recent paper on the effects of continuous positive airway pressure (CPAP) ventilation on nasal inflammation in patients with obstructive sleep apnea syndrome (OSAS) [1]. In our paper we have reported that all of our patients with OSAS were affected by some form of rhinopathy, mostly subclinical, which was not found to influence compliance to CPAP. Regular CPAP treatment induced a considerable reduction of cell infiltration (neutrophils, eosinophils, lymphocytes, and muciparous cells), which was not seen in nontreated patients.

In their letter, Esquinas and Ferrari [2] point out some factors that might exert a role in determining nasal inflammation in OSAS and/or contribute to the beneficial effects of CPAP, but the possible underlying mechanisms are not explained. We have already mentioned [1] that with our study we cannot rule out a role for the humidification of the air used in our patients; however, this ruling does not detract from the significance of our results demonstrating the effectiveness of CPAP with air humidification in correcting nasal inflammation.

We agree with Esquinas and Ferrari [2] that other factors might be involved and that additional studies might clarify at least some of these mechanisms. However, we can exclude environmental factors playing a crucial role because nasal inflammation was found in all patients from different socioeconomic statuses and was found in those who used to sleep in different environmental conditions. Finally although it is reasonable to believe that other factors related to ventilation therapy might be beneficial, the claim that CPAP (correctly performed) might be exerting a proinflammatory action is an unsupported speculation that cannot be accepted with the current knowledge.

Conflict of interest

The ICMJE Uniform Disclosure Form for Potential Conflicts of Interest associated with this article can be viewed by clicking on the following link: <http://dx.doi.org/10.1016/j.sleep.2013.01.003>.

References

- [1] Gelardi M, Carbonara G, Maffezzoni E, Marvisi M, Quaranta N, Ferri R. Regular CPAP utilization reduces nasal inflammation assessed by nasal cytology in obstructive sleep apnea syndrome. *Sleep Med* 2012;13:859–63.
- [2] Esquinas AM, Ferrari G. Continuous positive airway pressure (CPAP) and nasal inflammation patterns in OSA: antiinflammatory or proinflammatory. *Sleep Med*, in press.

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