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Positional Obstructive Sleep Apnea and Periodic Limb Movements During Sleep: A Large Multicenter Study

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To the editor:

I read with great interest the recent article by Soh et al. [1] titled "Positional obstructive sleep apnea and periodic limb movements during sleep: a large multicenter study." The authors investigated the relationships among positional obstructive sleep apnea (POSA), obstructive sleep apnea (OSA), and periodic limb movements during sleep (PLMS). They conducted a multicenter study with a large number of participants and presented statistical analyses in areas where previous research has been limited. They discovered that the mean periodic limb movement index (PLMI), periodic limb movement with arousal index (PLMAI), and prevalence of PLMS were significantly lower in participants with severe OSA than in those with mild or moderate OSA. The authors also found that the mean PLMI, PLMAI, and prevalence of PLMS were higher in patients with POSA than in those with non-positional OSA. I greatly appreciate their contribution and wish to offer my thoughts on the results while raising additional questions based on the authors' extensive data.

Various conditions have been identified that may affect PLMS. Notably, the use of medications—including antidepressants—is one such factor. In this study, aside from basic characteristics such as age, sex, and body mass index, no additional factors were adjusted for in the statistical analysis, as noted in the limitations section of the discussion. However, what is your opinion on the possibility that factors such as medication history, which were not considered in this study, may have influenced the results? A study cited in this paper by Lee et al. [2], similar to the current study, also did not adjust for medications in the statistical analysis. While the results demonstrated that PLMS decreased with increasing OSA severity, other studies have reported that when excluding the daily use of any medication, PLMS was significantly elevated in patients with severe OSA [3]. Conditions such as anemia have been associated with PLMS, and clinicians are advised to regularly test serum iron levels, including ferritin and transferrin saturation [4]. Could you share the number of patients with PLMS in this study who underwent additional tests, such as serum iron studies, after diagnosis? Considering that patients with OSA are often obese and generally well nourished, I frequently hesitate to prescribe extra serum iron tests or iron-containing supplements. Regarding a multicenter study involving multiple clinicians, as in this one, I would appreciate any insights from the authors regarding their clinical approach to this issue.

I would like to express my sincere appreciation for the efforts involved in this study, which gathered a substantial amount of data for statistical analysis from many participants across multiple tertiary medical centers. I am grateful to the authors for publishing and sharing their methodology and findings with a broad audience.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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AUTHOR CONTRIBUTIONS

All the work was done by Hyun Jin Min.

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