

LETTERS TO THE EDITOR

## Lower pressures may not help increase adherence

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In their article “Titration studies overestimate continuous positive airway pressure requirements in uncomplicated obstructive sleep apnea,” Fashanu et al<sup>1</sup> perform a retrospective study comparing the recommended manual titration pressure to the derived 90%–95% pressure on an autotitrating positive airway pressure (APAP) device, typically on a prescribed setting of approximately 5–15 cm H<sub>2</sub>O. With limited citations, including a French study<sup>2</sup> that I am admittedly unable to read, the authors suggest that higher pressures may lead to worsened adherence to continuous positive airway pressure (CPAP). Because the authors noted that APAP utilized a lower average pressure than CPAP with a set pressure following a manual titration, they concluded that, “It is thus reasonable to infer that treatment modalities like APAP, which have been shown to be effective while reducing PAP [positive airway pressure] delivery, may improve compliance . . .”

While it is possible that APAP after a manual titration provides better adherence because the APAP’s 90%–95% pressure was on average 1.1 cm H<sub>2</sub>O lower than the straight CPAP setting, there are additional reasons why APAP may provide better adherence over CPAP. The fact that APAP can adjust pressures based on sleep stage and sleeping position likely helps more with adherence than the small difference in average pressure between APAP and fixed CPAP. Even more important to adherence is the human component of having licensed technologists work with patients during a manual titration to help them find the right mask, and knowledgeable sleep staff listening to patient’s problems on CPAP once they have been started on therapy. The article reports that, “The average clinic follow-up interval after the titration study was 5.3 ± 3.4 months.” Because many patients tend to give up on CPAP in the first 30 days and many insurance companies require that patients become adherent to CPAP in the first 90 days, this interval seems far too long. It would have been interesting to see whether timelier follow-up with a sleep physician would have led to better adherence in this retrospective chart review. Although Fashanu et al<sup>1</sup> calculated an average nightly usage of 5.3 hours in their patients using APAP, they did not list the overall adherence for a model where nearly three-quarters of patients may have been started on an APAP setting of 5–15 cm H<sub>2</sub>O despite having a manual titration that provided a recommended pressure setting. The superiority of APAP to CPAP at a set pressure after a manual titration was based on the apnea-hypopnea index derived

from the APAP machine being lower than the apnea-hypopnea index from a manually scored titration, which seems to be comparing apples to oranges. It was surprising that in a paper extolling the benefits of lower pressures, only 60% of their patients with uncomplicated obstructive sleep apnea could get to an APAP apnea-hypopnea index of < 5 events/h (average 5 ± 4.3 events/h).

Although I concur that pressure discomfort is a major contributor to CPAP nonadherence, both too-high and too-low pressures can cause this discomfort. There is often a therapeutic range of pressures that can be used to treat patients. The focus should be on working closely with patients to best determine what may work for them.

### CITATION

Kuhlmann D. Lower pressures may not help increase adherence. *J Clin Sleep Med*. 2022;18(2):685.

### REFERENCES

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2. Ghrairi H, Khalfallah I, Abid N, Loukil M. Adherence to treatment with continuous positive airways pressure. Article in French. *Rev Mal Respir*. 2018;35(5):531–537.

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### DISCLOSURE STATEMENT

The author has seen and approved the final manuscript. Dr. Kuhlmann is a board member of the American Academy of Sleep Medicine and the American Academy of Sleep Medicine Foundation. The views expressed are his own and do not necessarily represent the view of the American Academy of Sleep Medicine. The author reports no conflicts of interest.