

LETTERS TO THE EDITOR

Obstructive Sleep Apnea and Stroke

Response to Budd et al. Twitter discussions from a respirology journal club: role of positive airway pressure therapy for obstructive sleep apnea in patients with stroke. *J Clin Sleep Med.* 2018;14(10):1817.

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It is good that this study of ours¹ ignited fresh discussions and that it was discussed on the Twitter journal club, as reported by Budd et al.²

The first point raised is about the number of subjects randomized and about the study being underpowered. As acknowledged by discussants, this point was addressed in detail in the strengths and limitations subsection of the discussion section of the paper. It is reiterated that huge effort went into screening a huge number of potential participants and consent was obtained from 354 patients out of the total of 679 who were screened. The challenges have been reported in detail, and these are also important to recognize, so as to aid in planning for larger multi-center trials with similar aims.¹

The second point raised by Budd et al., is not entirely accurate. While an intention to treat analysis is desirable for superiority trials, both intention to treat and per protocol analysis are usually best reported for non-inferiority trials.³ At the same time, this study was not aimed at establishing superiority of positive airway pressure (PAP) treatment. Based on currently available literature focused on screening patients who have had a stroke and treating sleep apnea detected among them, we are still in early stages of collecting evidence.⁴ Given the limitation of small numbers, already acknowledged in the previous paragraph, we chose to report the results from the analysis that are most clinically relevant.

We wish to draw attention of discussants of this journal club towards the very clear description of the methods used for diagnosis of the primary vascular events in the methods section of the paper in response to the final point about “lack of clarity.” Brain imaging, mostly a diffusion weighted MRI study, was conducted at the slightest doubt of any fresh stroke or transient ischemic attack. In addition, electrocardiograms (ECGs) were part of detailed follow-up for all randomized patients, irrespective of their reporting new symptoms or not. In case of any doubt about new cardiac events, ECGs and estimation of cardiac enzymes were obtained.¹

It is reassuring to note that the participants of the reported journal club unanimously agreed about treating obstructive sleep apnea among patients who have had a stroke.² It is just one step further, based on the huge percentage of patients who have had a stroke identified in our study, to have sleep

apnea (similar to several others). It would be of great scientific value for readers who are physicians to be encouraged to at least screen all patients who have had a stroke for sleep apnea, and motivate them and their caregivers to consider treatment with PAP.¹ Better neurological outcomes in those treated with PAP should certainly provide a little more impetus to practicing physicians and neurologists involved in the care of patients who have had a stroke.

CITATION

Gupta A, Shukla G. Obstructive sleep apnea and stroke. *J Clin Sleep Med.* 2018;14(10):1819.

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DISCLOSURE STATEMENT

All authors have seen and approved the manuscript. Work for this study was performed at All India Institute of Medical Sciences, New Delhi. The authors report no conflicts of interest.