

## LETTERS TO THE EDITOR

# Impact of Sleep-Disordered Breathing on Postoperative Outcomes: Another Brick in the Wall

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We read with great interest the paper by Ding et al.: “Obstructive Sleep Apnea Increases the Perioperative Risk of Cardiac Valve Replacement Surgery: A Prospective Single-Center Study.”<sup>1</sup>

The prevalence of sleep apnea in surgical patients is higher than that found in the general population. Improved medical awareness, referral biases, and the relentless obesity epidemic are the most plausible explanations. Sleep-disordered breathing has been consistently shown to increase postoperative complications rates, length of intensive care stay, and resource utilization in several surgical settings. As authoritatively reported in a recent editorial comment, literature regarding outcomes after cardiac surgery is still sparse, plagued by several methodological limitations and, ultimately, largely inconclusive as to the impact on postoperative outcomes.<sup>2</sup> The study by Ding and coworkers aimed to prospectively determine the association of obstructive sleep apnea (OSA) and central sleep apnea (CSA) with perioperative events in 290 patients with rheumatic valvular heart disease undergoing cardiac valve replacement surgery. Patients with OSA had an increased incidence of perioperative adverse events. OSA was independently associated with overall postoperative recovery, respiratory insufficiency, and higher rate of postoperative pacemaker use, while CSA was not associated with postoperative events.

The authors should be commended for their overall contribution to the knowledge of this topic; nevertheless, several limitations apply.<sup>3</sup> There is no report of several preoperative patients features that might better characterise study subsets; similarly there is no report on the type of surgery (i.e., aortic versus mitral versus tricuspid involvement, single versus multiple replacement procedures), as well as a lack of details on patient blood management, relevant intraoperative and postoperative adverse events, and practice patterns which hamper significantly study conclusions. More outcomes definition falls short in complying with current standards in surgical literature, and the statistical analysis for outcomes predictors did

not include several known predisposing factors. The authors clearly demonstrated that perioperative screening is crucial to identify a more vulnerable patient subset, but further prospective, large-scale studies are needed to identify clinically meaningful associations with outcomes and, therefore, the potential for preventative strategies.

## CITATION

Esquinas AM, De Santo LS. Impact of sleep-disordered breathing on postoperative outcomes: another brick in the wall. *J Clin Sleep Med* 2016;12(11):1571.

## REFERENCES

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3. Ding N, Ni BQ, Zhang XL, et al. Elimination of central sleep apnea by cardiac valve replacement: a continuous follow-up study in patients with rheumatic valvular heart disease. *Sleep Med* 2014;15:880–6.

## SUBMISSION & CORRESPONDENCE INFORMATION

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## DISCLOSURE STATEMENT

The authors have indicated no financial conflicts of interest.