



## Letter to the Editor: Regarding The Evaluation of Screening Questionnaires for Obstructive Sleep Apnea to Identify High-Risk Obese Patients Undergoing Bariatric Surgery

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I have read with interest the article published detailing the usefulness of screening questionnaires to detect obstructive sleep apnoea (OSA) in bariatric surgery patients [1]. The data collection and results add to the literature suggesting that clinically significant OSA is both underdiagnosed in bariatric patients and that screening questionnaires lack sensitivity and specificity in this population; however, I found that the conclusion was a missed opportunity to advocate for integrating formal preoperative sleep studies for all bariatric surgical patients.

Despite the knowledge that bariatric surgery patients have a high risk of OSA, preoperative screening is infrequent [2]. The finding that OSA is more common in bariatric surgery patients may be because patients who are at high risk of OSA are less responsive to typical weight loss interventions such as dietary counselling [3] and hence require a surgical intervention. A number of the diseases that bariatric surgery is attempting to prevent or reduce such as atherosclerosis, hypertension, myocardial infarction, and stroke [4] have an increased risk associated with OSA [5] so it seems short-sighted to only treat one risk factor when the patient is likely to have both.

While there is evidence that bariatric surgery does have a positive effect on the treatment of OSA [6] additional treatment following surgery may still be required with 20% of patients will still suffering from moderate or severe OSA 1 year after surgery [7]. This means that the identification

and treatment of OSA is not just important in the perioperative period but also should be part of the ongoing management of these patients. It is unlikely that a patient who was found to be a type II diabetic in the perioperative period would be recommended to not bother seeking treatment since a significant proportion may go into remission [8].

OSA is a known perioperative risk factor, although there is limited evidence on which perioperative interventions are the most effective in reducing this risk [9]. Current guidelines for the management of OSA recommend identifying patients that are at high risk (such as bariatric patients), starting preoperative continuous positive airway pressure (CPAP) and having intraoperative and postoperative plans that consider the severity of OSA [10].

It would be ideal to be able to both immediately identify and initiate therapy for OSA patients so that surgery could proceed without delay but this is not possible with current questionnaires. Despite advocates for routine polysomnography (PSG) prior to bariatric surgery from more than 10 years ago [11], the practice has not been adopted widely with only 28.7% of patients having had PSG prior to surgery in the longitudinal assessment of bariatric surgery 2 (LABS-2) trial [2]. Although there were some concerns identified about the cost of PSG, failure to diagnose and treat OSA comes with its own individual and societal economic costs [12].

There may be some resistance to looking for OSA as the decision about the appropriateness of using CPAP in the perioperative period has some conflicting evidence. There have been some case reports suggesting that positive airway pressure may be associated with bowel distention and anastomotic leaks [13], however maintaining adequate ventilation and oxygenation would likely improve anastomosis perfusion and healing. There have been studies that have shown that CPAP is safe in the perioperative period [14] for bariatric surgery as well as others that

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have shown it is unnecessary [15]. Although further study is needed, hoping to not identify those with OSA to avoid a considered decision is not a valid strategy.

The high prevalence of OSA in the bariatric surgery population, inadequate screening tools, and the implications for the perioperative period and beyond mean that formal screening with PSG should be routine in the preoperative assessment for bariatric surgery patients and I feel should have been the overall conclusion of this article.

## Compliance with Ethical Standards

**Conflict of Interest** The author declares that there is no conflict of interest.

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