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The Importance of Sleep Testing With Bariatric Surgery Patients

Obstructive sleep apnea (OSA) is common in morbidly obese patients, with a reported prevalence as high as 45% in obese subjects.[1] In fact, according to one study presented at the American Society of Metabolic and Bariatric Surgery, of 359 patients who had preoperative polysomnography, 86% had positive tests, which showed severe OSA in half of the cases.[2]

Obesity predisposes to and potentiates OSA, which demonstrates the need to diagnose OSA through polysomnography testing as part of the preoperative evaluation for bariatric surgery. Preoperative diagnosis of OSA is important for both perioperative airway management and the prevention of postoperative pulmonary complications.[3]

Assessment of OSA

Polysomnography remains the gold standard for diagnosis and assessment of OSA. Assessing a patient's BMI is not a fully diagnostic indicator for OSA. In one study, 40 patients being evaluated for bariatric surgery underwent a polysomnography regardless of symptoms. OSA was present in 71% of patients. The majority of the patients were women whose patient characteristics failed to predict the severity of OSA. For that reason, providers should have a low threshold for ordering a polysomnography as part of the preoperative evaluation for bariatric surgery.[4]

Preoperative Treatment for OSA

CPAP is the mainstay treatment for moderate to severe OSA and has been shown to improve objective and subjective measures of OSA. Appropriate therapy with CPAP perioperatively would theoretically prevent hypoxic complications associated with OSA.[5]

CPAP has been shown to be a highly effective treatment if appropriately used. Medical literature demonstrates that CPAP can also lead to an improvement in hypertension, especially for patients with moderate to severe OSA.[4]

Postoperative Treatment for OSA

Data in the literature demonstrates subjective improvement in symptoms of OSA after bariatric surgery, including improvement in self-reported postoperative sleep quality and the reduction in daytime sleepiness. Improvement in validated quality of life scores was shown after bariatric surgery.[7]

Continuous pulse oximetry (in a critical care or step-down unit or by a dedicated, appropriately trained professional observer in the patient's room) is felt to reduce the likelihood of complications among patients with OSA.[8]

Another report recommends continuous monitoring should be maintained for as long as patients remain at increased risk and for at least 3 hours beyond the standard observation time of their non-OSA counterparts.[9]

Postoperative use of CPAP should not be viewed as potentially adverse to outcomes following bariatric surgery due to any such concerns, and its use should be employed by bariatric surgeons based on the patient's pulmonary status postoperatively. The risk of anastomotic complications is not increased by CPAP use in the immediate postoperative period following routine gastric bypass based on the existing literature.[10] In fact, the risk for prolonged or repeat hospital stays is reduced with CPAP treatment.

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Conclusion

Untreated OSA is a comorbidity observed with high prevalence in the bariatric patient population that leads to increased mortality and increased medical disability from several cardiovascular diseases.

Polysomnography is recommended prior to bariatric surgery to determine the if OSA is present and manage symptoms prior to surgery.

Appropriate follow up with a sleep medicine physician is needed to ensure postoperative compliance with CPAP treatment. Management of OSA after bariatric surgery can help aid in postoperative weight loss in the long term.

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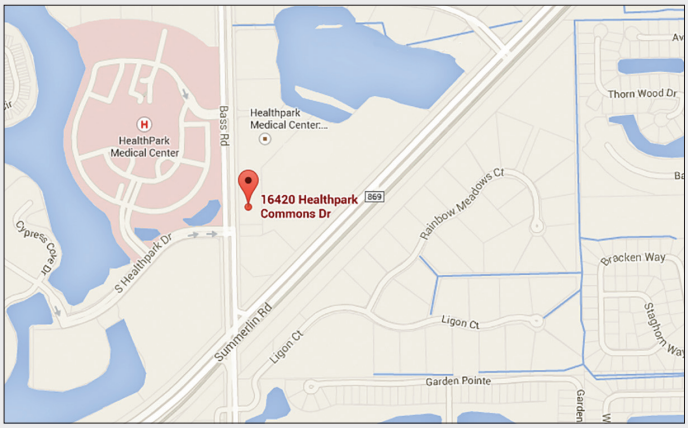

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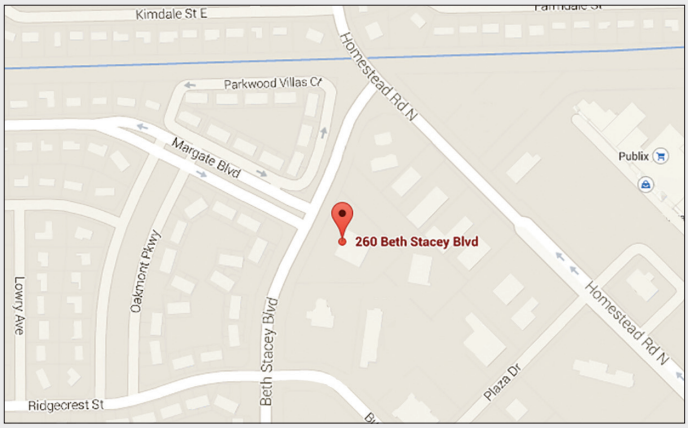

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