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## ASMBS: Sleep Test Needed Before Bariatric Surgery

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### MedPage Today Action Points

- Note that this study was published as an abstract and presented at a conference. These data and conclusions should be considered to be preliminary until published in a peer-reviewed journal.
- Explain that most candidates for bariatric surgery have obstructive sleep apnea (OSA), making a case for polysomnography as a routine part of the preoperative evaluation of every patient.
- Note that every patient in the highest BMI category ( $\geq 60$ ) had a polysomnographic test showing sleep apnea.

### Review

ORLANDO -- Most candidates for bariatric surgery have obstructive sleep apnea (OSA), making a case for polysomnography as a part of the preoperative evaluation of every patient, investigators concluded.

Of 359 patients who had preoperative polysomnography, 86% had positive tests, which showed severe OSA in half of the cases.

The patients had a high prevalence of the sleep disorder across the range of body mass index (BMI) values represented by the patient population, although every patient in the highest BMI category ( $\geq 60$ ) tested positive for OSA, as reported here at the American Society of Metabolic and Bariatric Surgery meeting.

"Some people think that only patients in the highest BMI categories should be referred for polysomnography, because they are the patients who are most likely to have obstructive sleep apnea," Abdul S. Bangura, MD, of Staten Island University Hospital in New York, told *MedPage Today*.

"However, our study showed a high prevalence of obstructive sleep apnea in all BMI categories. Because of that, we think polysomnography is justified during the preoperative evaluation of all bariatric surgery patients, and that is the policy at our institution."

Obesity substantially increases the risk of OSA, and studies have documented a high prevalence of OSA and other sleep-related breathing disorders among patients evaluated for bariatric surgery. Polysomnography remains the gold standard for diagnosis and assessment of OSA, but practices vary with regard to use of the sleep test in the preoperative evaluation of candidates for weight-loss surgery, said Bangura.

Moreover, patients and physicians alike find sleep tests inconvenient, time-

consuming, and expensive, he continued.

At his own center, polysomnography is a routine component of the preoperative workup. However, other centers have adopted a selective approach to use of the sleep test, relying on the level of clinical suspicion of OSA to guide decision making.

"Various scoring systems have been used to screen for sleep apnea, but all of them remain controversial," said Bangura. "There is currently no standard protocol for screening obese patients for OSA."

To see whether a routine or selective approach to preoperative testing for OSA is more appropriate, Bangura and colleagues retrospectively reviewed records of all patients who had bariatric surgery procedures at their center from 2005 to 2010. They identified 555 patients, including 359 (65%) who underwent polysomnographic evaluations during their preoperative workup.

Investigators used the apnea/hypopnea index (AHI) to categorize apnea severity, defining mild OSA as an AHI score of 5 to 15 events per hour; moderate as a score of 15 to 30; and severe as a score exceeding 30.

Of the 359 patients evaluated for OSA, 309 (86%) had positive tests, including some patients who had positive OSA tests prior to the preoperative evaluation for bariatric surgery. On the basis of AHI scores, 18% of the 359 patients had mild OSA, 17% had moderate OSA, and 51% had severe apnea.

Analysis of OSA prevalence by preoperative BMI showed that the following tested positive for OSA:

- 34 of 37 (92%) patients with BMI values of 35 to 39.9
- 178 of 218 (82%) of patients with BMI values of 40 to 49.9
- 78 of 85 (92%) of patients with BMI values of 50 to 59.9
- 100% of patients with BMI values of 60 or greater

"Based on these results, we consider routine polysomnography to be an essential part of the preoperative workup for all bariatric patients," Bangura and colleagues concluded in their poster presentation.

Randomized controlled trials are required to provide evidence of guidelines on routine use of polysomnography as part of the workup for bariatric surgery patients, he said. Given the lack of a reliable prognostic system to predict OSA, the investigators urged consideration of routine polysomnography as part of the preoperative evaluation of all bariatric surgery candidates.

Bangura had no relevant disclosures.

**Primary source:** American Society of Metabolic and Bariatric Surgery

**Source reference:**

Bangura AS, Gibbs KE "Is routine preoperative polysomnography necessary in patients having bariatric surgery" *ASMBS* 2011; Abstract P-77.

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