

# Preop Weight Loss Doesn't Help Bariatric Outcome

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SAN FRANCISCO — Patients who shed pounds before undergoing Roux-en-Y gastric bypass surgery lose excess weight and resolve comorbidities at rates comparable with those who do not lose weight preoperatively, according to short-term results from one of the first randomized trials to examine the effect of early weight loss.

The role of weight loss prior to bariatric surgery, particularly with Roux-en-Y gastric bypass (RYGB), is not well established, said Dr. Ramzi S. Alami, who presented results of the trial at the annual meeting of the American Society for Bariatric Surgery.

"There is significant concern that preoperative weight loss requirements may deter potential patients from seeking" surgery, he said. But the trial showed that the time to surgery was nearly the

same among the 26 patients who participated in the weight-loss intervention and the 35 who were not randomized to lose weight.

Proponents of preoperative weight loss see it as a marker of patient compliance and commitment to lifestyle changes. Some surgeons think that because heavier patients tend to lose less weight postoperatively than lighter patients, the preoperative weight loss will help produce better results.

"Convincing data" also suggest that rapid weight loss shrinks the liver, which may lead to easier operations with fewer complications, said Dr. Alami, of the department of surgery at Stanford (Calif.) University.

Opponents of preoperative weight loss argue that efforts to lose weight before surgery may only delay the procedure and that many bariatric surgery candidates have tried unsuccessfully to lose weight in the past.

Dr. Alami and his associates randomized 100 patients to lose either 10% of their initial weight or to lose no weight, but only 61 patients actually underwent RYGB. The investigators encouraged patients in the weight-loss group to "lose weight by any means that had worked for them in the past." A nutritionist was available to the patients for consultation.

Patients in the weight-loss group lost a mean of 8% of their initial body weight (mean of 23.5 pounds), ranging from 1.3% to 16%. This led to a significant difference in the preoperative body mass index of patients in the weight-loss group (44.5 kg/m<sup>2</sup>), compared with those in the non-weight-loss group (50.7 kg/m<sup>2</sup>).

**Patients who did not lose weight preop spent 30 minutes longer in surgery than those who did, but most of that was attributed to anesthesia management.**

Both groups waited a similar amount of time on average to have their surgery (5.4 months in the weight-loss group vs. 5.2 months in the other). Patients who did not lose weight before surgery spent a significant 30 minutes longer in the operating room than those who did, but most of that was attributed to anesthesia management rather than the actual procedure, Dr. Alami said.

At 3 months, patients in the weight-loss group had lost a total of 44% of their weight, compared with 33% in their counterparts, but at 6 months, the differences were 54% vs. 51%, respectively. With such weight-loss results, it "was not surprising" that a similar percentage of patients in each group resolved their comorbidities, he said.

The study had a high dropout rate because patients were randomized "very early"—at their first point of contact with the clinic when they were still deciding on whether or not to have surgery; the high rate was not secondary to the weight-loss requirement, Dr. Alami said.

In a prior retrospective study of 90 patients who were instructed to lose weight before undergoing laparoscopic RYGB, Dr. Alami and his associates found that a preoperative weight loss of 1% translated into an increase of 1.8% of excess weight loss after 1 year.

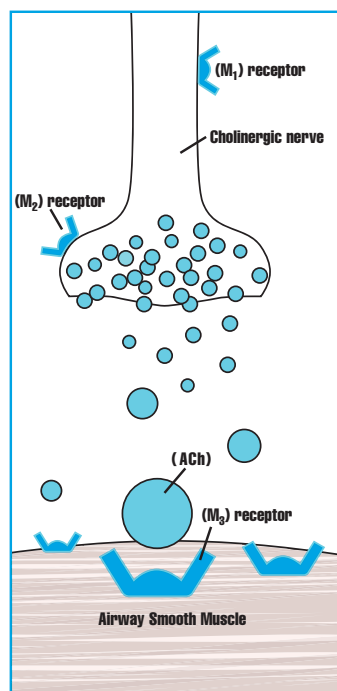
In that study, operative times were 36 minutes shorter on average in patients who lost weight before surgery (Obes. Surg. 2005;15:1282-6).

## ADVERTISEMENT

# COPD

## Understanding the role of cholinergic tone

Exploring the pathophysiology of chronic obstructive pulmonary disease (COPD) may provide insight into how to effectively treat patients. COPD causes bronchoconstriction and inflammation, which lead to airway narrowing. COPD results in structural changes to the peripheral airways and lung parenchyma, as well as edema and increased mucus secretion in the airways.<sup>1</sup> Understanding the reversible components of COPD is a key step toward providing appropriate treatment.



### ► Cholinergic tone: a major component in COPD<sup>2,3</sup>

Cholinergic tone plays a prominent role in COPD airway narrowing. Following exposure to noxious stimuli (eg, smoking), the parasympathetic neurotransmitter acetylcholine (ACh) is released from cholinergic nerves and binds to the muscarinic (M<sub>1</sub>, M<sub>2</sub>, and M<sub>3</sub>) receptors. The consequence is airway narrowing<sup>2</sup> and airflow limitation.<sup>3</sup>

### Cholinergic tone is a key element of COPD bronchoconstriction<sup>2</sup>

### ► Pathophysiology and treatment decisions for COPD

Because cholinergic nerves are a main pathway by which bronchoconstriction occurs in COPD,<sup>2</sup> it is appropriate to address cholinergic tone when beginning maintenance treatment. Anticholinergics work by blocking M<sub>3</sub> receptors to help prevent the effects of cholinergic tone.<sup>2,4</sup>

### ► Appropriate treatment is needed

Once the pathophysiology of cholinergic tone in COPD-associated airway narrowing is fully appreciated, physicians can make effective pharmacologic decisions for patients with COPD.

**References:** 1. Global Initiative for Chronic Obstructive Lung Disease. *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease: Updated 2005*. Bethesda, Md/Geneva, Switzerland: National Heart, Lung, and Blood Institute/World Health Organization; 2005. Available at: <http://www.goldcopd.org>. Accessed July 26, 2006. 2. Barnes PJ. The role of anticholinergics in chronic obstructive pulmonary disease. *Am J Med*. 2004;117:24S-32S. 3. Honig EG, Ingram RH Jr. Chronic bronchitis, emphysema, and airways obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, et al, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1451-1460. 4. Barnes PJ. Distribution of receptor targets in the lung. *Proc Am Thorac Soc*. 2004;1:345-351.

