

ADVANCES IN ENDOSCOPY

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Managing Obesity With Endoscopic Sleeve Gastroplasty



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G&H What is the role of endoscopic sleeve gastroplasty in the management of obesity?

RS Approximately 30% of the US population is overweight or obese, and the treatment of obesity is a growing problem. On one end of the treatment spectrum are medications, diet, and exercise, which are less costly and have fewer side effects. On the other end of the spectrum are the surgical options—laparoscopic bands, surgical sleeves, and Roux-en-Y gastric bypass—which have a higher efficacy but also more complications. Only approximately 1% to 2% of patients who are eligible to have surgery undergo surgical procedures each year, which leaves a treatment gap. That gap can be filled by endoscopic options, one of which is endoscopic sleeve gastroplasty.

G&H How is endoscopic sleeve gastroplasty performed?

RS Endoscopic sleeve gastroplasty is performed in an endoscopy suite with a device that is attached to the tip of the endoscope. The procedure is done under general anesthesia. The endoscope is inserted down the throat and into the stomach, and a series of sutures are made from the bottom of the stomach up to the gastroesophageal junction to cinch the stomach together, much like an accordion. It is a scarless, 45-minute procedure, and the patient stays in the recovery room for a couple of hours before returning home.

G&H How effective is this procedure as a weight-loss intervention long term?

RS There are data 4 years out reporting that endoscopic sleeve gastroplasty is fairly effective long term. On average, approximately 60% of patients experience up to 20% of total body weight loss after 1 year. At 2 and 3 years postprocedure, the data show that patients maintain or continue to lose weight, provided that they are continuing with diet and exercise and maintaining follow-up with their endoscopist or bariatric program. There are certain patients who do not achieve 20% total body weight loss, and in these patients, another modality is needed as a weight-loss intervention.

G&H What are the effects of this procedure on metabolic complications?

RS My colleagues and I recently conducted a study evaluating the effect of endoscopic sleeve gastroplasty on metabolic complications. We found that patients who underwent this procedure achieved significant improvement in high blood pressure, diabetes and diabetic markers for prediabetes (eg, A1C levels), liver function tests, sleep apnea, and cholesterol levels. In addition, patients had sustained weight loss for up to 2 years.

G&H Are adjunctive therapies necessary with this approach?

RS Adjunctive therapies are not needed, but certain weight-loss medications that are approved by the US Food and Drug Administration (FDA) can be used to augment weight loss in patients who do not lose as much weight as they want.

G&H What adverse events are associated with endoscopic sleeve gastroplasty?

RS For several days following the procedure, patients may experience nausea and pain, both of which can be managed with a variety of medications. The severe adverse events that have been reported include leaks, perforation, and bleeding (all <2%).

... the endoscopic approach was associated with fewer complications and a shorter length of stay, making this option less costly in the long term.

G&H How does endoscopic sleeve gastroplasty compare with other endoscopic approaches for obesity management?

RS In terms of what is approved by the FDA, the 3 main endoscopic options are endoscopic sleeve gastroplasty, endoscopic balloons (only 3 of which have FDA approval), and the AspireAssist (Aspire Bariatrics) device. The endoscopic balloon has to be removed after approximately 6 months, and patients lose around 10% of their total body weight. That weight may be regained after balloon removal if patients do not follow up with a good nutrition and lifestyle therapy program. According to trial results, the AspireAssist device can achieve 25% to 30% excess weight loss at the 1-year mark, making this procedure a good alternative. However, acceptability may pose a challenge with patients, as the device is placed outside of the abdomen.

G&H How does endoscopic sleeve gastroplasty compare with surgical approaches for obesity management?

RS My colleagues and I recently compared the endoscopic sleeve to the surgical sleeve and laparoscopic

band, and presented study results at this year's Digestive Disease Week meeting. We found that the surgical sleeve achieved better total body weight loss at the 1-year mark (27%) compared to the endoscopic sleeve (17%) and the laparoscopic band (14%). In patients with a body mass index of less than 40, the weight loss between the endoscopic and surgical options was similar. However, the endoscopic approach was associated with fewer complications and a shorter length of stay, making this option less costly in the long term.

G&H Who is the ideal candidate for this procedure?

RS The ideal candidate for endoscopic sleeve gastroplasty is someone who understands that this procedure is not the be-all, end-all for weight loss, but rather a tool for weight loss. Ideally, patients should have a body mass index between 30 and 40, or higher if they are not a surgical candidate (eg, they have previously undergone other types of surgery, have had adhesions, or have had a frozen abdomen) or do not want to undergo surgery. Even though surgery has been shown to be the most effective option, only 2% of patients choose that route; thus, the endoscopic sleeve provides an alternative option.

G&H Are repeat procedures necessary?

RS Patients may undergo repeat procedures 2 to 3 years after the initial procedure if they need tightening to feel full again. Personally, I do not offer repeat procedures to all patients because I want the initial procedure to be their impetus to lose weight and do not want to create a culture in which people are reliant on tightening.

G&H How should patients be followed up?

RS Patients generally follow up with a nutritionist monthly or bimonthly, depending on their needs, and follow up with their endoscopist at the 1-, 3-, 6-, 9-, and 12-month marks. If needed, patients may follow up more frequently. If a patient's weight loss needs to be augmented, he or she should meet with a doctor for medically managed weight loss to discuss additional medications.

G&H What training and experience are needed to perform endoscopic sleeve gastroplasty?

RS Endoscopists should be able to perform endoscopy, dilation, and stent placement as well as be comfortable with the use of an endoscope. Additionally, they should have an understanding of how to treat obesity, and

emphasize to patients that the management of obesity is lifelong and involves dieting, exercising, and continued follow-up.

G&H What are the priorities of research in this field?

RS It would be beneficial to learn whether endoscopic sleeve gastropasty actually works by restriction or just by inducing a delay in emptying, and to understand its long-term effects on the gut. More studies are also needed to learn how this procedure works hormonally. Mechanistically, it is important to understand who the ideal candidate is and recognize the factors that may predict a successful outcome.

Dr Sharaiha is a consultant for Apollo Endosurgery and Boston Scientific.

Suggested Reading

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