

A Novel Approach to Sustained Weight loss

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Abstract

Obesity can complicate to high blood pressure (hypertension), dyslipidemia, type 2 diabetes, coronary heart disease, stroke, and reduce life expectancy. Bariatric surgery is a standard method of producing consistent and sustainable weight loss. The laparoscopic adjustable gastric band is a reversible procedure that demonstrates restrictive weight loss. Typically, after improving diet, exercise habits, and the gastric band have failed to reach the patient's target weight, a vertical sleeve gastroscopy (VSG) is recommended. Vertical sleeve gastroscopy is often used once laparoscopic band fails to achieve the patient's desired weight. VSG is an irreversible procedure that requires the removal of 80-85 % of the stomach and then reattached to increase further satiety and weight loss. In addition to surgery, a low-calorie diet and modifiable lifestyle changes are adopted to sustain weight loss and prevent complications of obesity.

Introduction

Chronic obesity is a well-known problem that individuals face around the world. Weight loss is imperative to individuals whose risk factors can lead to diabetes, psychosocial disorders, and heart disease. Obesity is the second leading cause of preventable death after smoking in the United States. National Institutes of Health estimated 300,000 deaths per year are because of an obesity pandemic.[1] Although an approach to primary prevention should be prioritized. Bariatric practitioners center on an effective therapy for rapid relief for those suffering from obesity. In association, pharmacotherapy has been an additive and synergistic approach alongside bariatric procedures that decrease hunger. If ideal conditions are not met physiologically, impairment of weight loss cannot be achieved. Reduced energy consumption due to loss of lean body mass, energy adaptation due to reduced thyroid function, reduced sympathetic

nervous activity, and increased muscle performance as all physiological improvements hinder an individual's ability to maintain weight loss.[2] The Laparoscopic adjustable band is fitted around the upper portion of the stomach, which will reduce capacity in the stomach allowing the patient to feel increased satiety. To continue weight loss, the band can be adjusted through saline administration. The procedure does not require any resection of the stomach. On the other hand, VSG is an irreversible procedure that requires resection of most of the stomach, achieving further weight loss. It's common practice to recommend VSG after an adjustable band to the patient. These bariatric procedures are the most effective weight loss methods in modern practice that lay out the foundation of rapid weight loss, approve lifestyle, and increase life expectancy by eliminating comorbidities.

Presentation of case

This case study presents a patient who has been working as a bus driver for many years who weighed a maximum weight of 398 lbs. The patient struggled to lose weight after an adjustable band was put around her stomach. A vertical gastric sleeve was later requested, leading to significant weight loss. Soon after, the patient once again

gained weight and projected that the procedure had little effect on achieving positive results. With only 15-20 % of the stomach, A gastric band was requested to be reintroduced for further restricting, drip feeding, and inhibiting further eating.

Discussion

Although a gastric bypass would have been the more common way to introduce more weight loss in this patient, the surgeon could place a laparoscopic adjustable gastric band successfully. The patient reported that she could not eat as much as she did before the initiation

of resistance. Both the patient and the doctor noticed a significant yet steady weight loss at that stage. The patient was alleviated, preventing risk factors that would decrease the patient's life expectancy and improved the lifestyle that the patient ultimately desired.

Conclusion

Surgical intervention is critical for those experiencing obesity and the risks of disease. The long-term effects of surgical weight loss have been considered, so they meet the standards of rapid, sustainable reduction in weight. Bariatric surgery is the primary foundation of life longevity in modern practice. There is sufficient evidence suggesting Laparoscopic adjustable band and Vertical sleeve gastrectomy are

Case Presentation

A 53-year-old African American female with a past surgical history of a gastric sleeve, 2011, asthma, 2012, and breast cancer, 2016 comes to the surgical outpatient clinic to request a Laparoscopic Adjustable Band. The patient had been struggling with obesity since 1967 when she weighed her highest weight, 398 lbs. She was endeavoring to lose weight for many years but had trouble consistently maintaining her diet. She also stated that she was not active throughout the day due to her occupation being a bus driver, sitting for numerous hours. At that point, she decided to have the gastric sleeve procedure. The patient was advised to lose weight before the procedure. She was placed on an 800-calorie diet and an exercise regimen that comprised her walking 4-6 city blocks four times a week. After the patient had lost 30 lbs, the patient was scheduled for the gastric sleeve procedure. After the gastric sleeve procedure, the patient's weight had decreased to 268 lbs in 2011. She was then diagnosed with asthma in 2012 and

Discussion

A Vertical Sleeve Gastrectomy (VSG) is a current procedure commonly used for obese patients with help for the reduction of excessive adipose tissue. The procedure consists of removing 80-85 % of the stomach. The remaining portion of the stomach is reattached to form a banana shape pouch. VSG is a permanent procedure, meaning the stomach changes are irreversible. This is performed with a laparoscopic approach rather than an open procedure. Using the laparoscopic approach is minimally invasive and reduces the chance of infection. A VSG will help with the reduction of 50-70 % of body fat over 18 months. With any gastric procedure, the patients must alter their lifestyle and eating habits. More commonly, patients are put onto a low-calorie diet to sustain weight loss. Alongside the management of weight, it is crucial to supplement patients with a multivitamin because patients will have a decreased absorption of all fat-soluble vitamins. Gastric procedures not only help with the reduction of adipose tissue, but they also help with other comorbidities and, in some cases, can help treat other conditions a patient may be diagnosed with.

A Laparoscopic Adjustable Gastric Band (LAGB) is more colloquially known as a Lap-Band. This procedure is also a standard approach for reducing excessive adipose tissue. With a Lap-Band, the significant difference is that this procedure is reversible and, as the name states, adjustable. This approach consists of a small donut-like

reliable procedures that benefit bariatric patients. It remains to be seen if the patients receiving the surgical procedures are effective therapy to overcome treatment resistance weight loss. A Laparoscopic adjustable band after a vertical sleeve gastrectomy is a rare recommendation, providing the risk factors, but can be improved over time to combat morbid obesity.

was treated with prednisone in an outpatient primary care facility. Later in 2016, the patient was evaluated and diagnosed with breast cancer, particularly malignant neoplasm of outer quadrant stage 1, for which she received treatment in an oncologist care facility. The patient was in a predicament regarding her weight once again as her weight had increased to 290 lbs. She addressed experiencing symptoms such as having trouble tying her shoes, exertion after walking short distances, hypertension, and gastric reflux. After carefully contemplating all her options, the patient requested a laparoscopic adjustable band. The patient was scheduled for a laparoscopic adjustable band and had undergone a successful procedure. After the laparoscopic band placement, the patient weighed 163 lbs in 2019. The procedure conducted had resultant alleviation of the patient's symptoms dictated earlier.

device placed around the upper portion of the stomach, which allows for constriction of the stomach to make a small pouch where the food will be stored. The remainder of the stomach will remain intact and allow gastric secretions to pass into the duodenum. The band's small pouch will only allow smaller portions of food to be stored. The effects of this are seen in weight loss because the patient can only endure small portions of food, which will reduce fat. The Lap-Band is adjustable with saline; the device has a balloon-like inner ring, making the band tighter, allowing less volume to pass, or loosening the band allowing more volume to pass. The addition or removal of saline is done thru an external port placed under the skin, which allows injection or removal of saline. Alongside the adjustment of volume, the patient is also placed on a multivitamin which will help the substitution of all lipid-soluble vitamins, which will have decreased absorption with the Lap-Band.

The patient 53-year-old female who has had a VSG back in 2011, weighed her highest of 398lbs before the procedure. The procedure allowed her to lose a staggering 130lbs within 12 months of having a VSG. The patient had some difficulties keeping the weight down due to unforeseen circumstances which changed her life. Over the next four years, the patient had gained 30 lbs and had hit a standstill with weight loss. She had continued to use the low-calorie diet and states that she had noticed she could eat more food as time progressed over

the four years. While the more common approach to introduce more weight loss in this patient would be a gastric bypass, the surgeon successfully placed a laparoscopic adjustable gastric band. With the introduction of resistance, the patient stated she could not eat as much

Conclusion

Diet and exercise will help maintain a healthy weight, but on the contrary, patients still find it burdensome to lose weight on their own. Seeking out the most conventional and effective bariatric surgery is imperative to the patient's weight-loss objective. In this case, this patient initially had elapsd with the VSG surgery and further took the laparoscopic band's approach to increasing satiety and weight loss further. Even though using a Lap-band after initial VSG is a very controversial procedure due to the limitation of the remaining stomach, it was very effective. Laparoscopic band after VSG is not the most conventional procedure. Initial Vertical Sleeve Gastrectomy surgery in 2011 demonstrated weight loss from 398 lbs to 268 lbs. The patient had lost a total of 130 lbs, in addition to diet adjustments

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K.N., K.K writing, draft preparation, investigator. R.S., S.N Writing, draft preparation, supervision. S.S., H.B. writing, draft preparation, editor, reviewer

References

1. Helmuth T. Billy, MD (2012) BAND OVER BYPASS, OCA COMMUNITY.
2. Amy Banks, MD, R Harrell, MD, J Foote, MD. BAND OVER SLEEVE, Grand Rapids Medical Education Partners, Michigan

food as before. At that point, both the patient and doctor noticed a substantial but stable weight loss. Over the next 18 months, the patient had seen a weight loss of 133 lbs. With this procedure's success, the patient had a total weight loss of 263lbs over five years.

of about 800 calories a day. The patient faced some uncertainty after being diagnosed with breast cancer in 2016 and gained 30 pounds creating some setbacks. After successful treatment and complete remission from breast cancer, a Laparoscopic adjustable band was placed on the stomach. A combination of the initial VSG procedure and a laparoscopic band placed on the body of the patient's stomach demonstrated much more weight loss than initially predicted. The surgical treatment helped the patient reach an astounding 163 lbs, a total net loss of an impressive 263 lbs. There is substantial evidence that correlates laparoscopic adjustable band after treatment-resistant VSG procedure can successfully help struggling patients lose substantial weight loss.

Conflict of interest disclosure

The authors declare that they have no financial conflict of interest regarding the content of this report.

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3. John B. Dixon, Nora E. Straznicky, Elisabeth A. Lambert, Markus P. Schlaich, Gavin W. Lambert (2012) Laparoscopic Adjustable Gastric Banding and Other Devices for the Management of Obesity, AHA JOURNALS. 126(6): 774–785.