

## The Effect of Laparoscopic Sleeve Gastrectomy vs. Intensive Medical Weight Loss Training Program on Patient Outcomes and Satisfaction

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**Introduction:** Laparoscopic sleeve gastrectomy (LSG), an increasingly used surgical treatment for obesity, results in significant weight loss and improves obesity-associated conditions in many patients. Non-surgical treatment options often do not result in as substantial weight loss compared to surgical treatment, however, they may provide the education and training necessary for patients to achieve long-term weight loss success.

**Hypothesis:** Patients who undergo LSG are more satisfied with their outcome and have increased quality of life compared to patients who undergo a year-long non-surgical medical weight loss training program.

**Methods:** Twenty subjects who underwent LSG and fifteen subjects who underwent non-surgical medical weight loss training were identified at UC Health. Subjects entered the programs between May 1 and July 31, 2017 and were interviewed one year after LSG surgery or the initiation of medical weight loss training. Six survey instruments were used to determine the subjects' satisfaction with their decision and current quality of life. Percent total body weight loss was calculated at one year.

**Results:** Patients undergoing LSG had a trend towards being younger with higher BMIs than the medical weight loss group (41.7 vs. 49.5 years,  $p=0.07$ ; and 45.8 kg /m<sup>2</sup> vs. 43.8 kg /m<sup>2</sup>,  $p=0.30$ ). The proportion of patients with obesity-associated conditions was similar in the two groups. Average percentage of total body weight loss for the LSG group was 22±8.9% and for the medical weight loss group was 9.6±9.9% ( $p=0.00063$ ). There were no differences between the two groups in quality of life at one year. Patients having LSG were significantly more satisfied than those undergoing medical weight loss with an average score for the Satisfaction with Decision Scale of 29.05±1.5 compared to 25.67±5.26 ( $p=0.016$ ) for the medical weight loss group. However, among those in the medical weight loss group, increased weight loss was associated with increased satisfaction ( $p=0.0003$ ) and less regret ( $p=0.0003$ ). There was no association between satisfaction or regret and weight loss in the LSG group.

**Conclusions:** Patients with obesity who undergo LSG are more satisfied with their decision one year after surgery compared to patients who participate in a non-surgical medical weight loss training program.

**Acknowledgements:** This study was supported in part by NIH grant T35DK06044.