



# **THE EFFECT OF VOLUME OF THE EXCISED PART OF THE STOMACH ON SHORT TERM EXCESS BODY WEIGHT LOSS IN LAPAROSCOPIC SLEEVE GASTRECTOMY**

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*A thesis submitted for partial fulfillment of the requirements  
for the master degree in General Surgery*

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# *Abstract*

Obesity is an epidemic disease, and its prevalence is predicted to rise in the future. Many health and social comorbidities, such as cardiovascular disease, type 2 diabetes mellitus, cancer, nonalcoholic fatty liver disease, arthritis, infertility, eating disorders, unemployment, and low quality of life, have been associated with obesity. Nowadays, bariatric surgery is the only effective treatment for severe obesity. An increasing body of literature demonstrates significant remission of obesity-related comorbidities and an increase in life expectancy after surgical treatment.

Those operations are classified as either restrictive or malabsorptive procedures. Restrictive procedures limit intake by creating a small gastric reservoir with a narrow outlet to delay emptying, whereas malabsorptive procedures bypass varying portions of the small intestine where nutrient absorption occurs. The restrictive procedures such as, laparoscopic adjustable gastric banding (LAGB) is characterized by being minimally invasive, total possibility of reversibility and good weight loss at long-term. On the other hand laparoscopic sleeve gastrectomy (LSG) is a common restrictive operation for obesity, with more invasiveness and a longer learning curve.

The study will included 20 cases of obese patients with BMI (body mass index)  $\geq 40$  Kg/m<sup>2</sup> or  $\geq 35$  Kg/m<sup>2</sup> associated with other comorbidities), and those patients who had failed



in trials of conservative management with all of them bulky eaters and non sweet eater and also ASA (American Society of Anesthesiologists) I and II. All patients with psychiatric impairment or those with BMI less than 40 Kg/m<sup>2</sup> or less than 35 Kg/m<sup>2</sup> and not associated with other comorbidities or those who had previous abdominal surgery or contraindications for laparoscopic surgery or abnormally sweet (high caloric fluid) eater were excluded. All patients did laparoscopic sleeve gastrectomy were followed up regularly for 6 months as regard the weight loss primarily and the rate of complications of the procedure if present. Preoperatively patients will undergo medical assessment, laboratory assessment, upper GI (gastrointestinal) tract endoscopy and pulmonary function tests.

Intraoperatively after ending the procedure; evaluation of the volume of the excised part of the stomach was done by the following technique and its correlation during the period of follow up with the weight loss:-

1. Putting the excised part of the stomach on a table.
2. Adjusting the height of the normal saline bag to be 1 meter from the table.
3. An intravenous set is inserted into the bag and inserted into the excised part of the stomach through a wide bore canula 14 G.
4. The saline is left to drip into the excised part of the stomach until complete distension of it is noticed.
5. Waiting for 3 minutes after dripping is stopped to assure filling the excised part of the stomach.

6. Measuring the volume of the saline filling the stomach part is done.

By analyzing the the results from the study; there is moderate correlation between the volume excised and the excess body weight loss detected after six months , and this correlation is statistically significant, and there is moderate correlation between the volume excised and the change in BMI detected after six months, and this correlation is statistically significant, but although there is weak correlation between the volume excised and the excess weight loss detected after one month , this correlation is statistically insignificant. Although there is weak correlation between the volume excised and the excess body weight loss detected after one month , this correlation is statistically insignificant.

We can conclude from this study that there is a significant relation between the volume of the excised part of the stomach and the short term the excess body weight loss L although insignificance of this the first month the excess body weight loss but the total the excess body weight loss in the first 6 months post-operative indicate a significant relation.

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