

*Evaluation of Gastro esophageal reflux
disease after laparoscopic sleeve
gastrectomy.*

An essay

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General Surgery

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List of Abbreviations

Abbreviation	Meaning
AgRP	A gouti related peptide
ARSG	Anti reflux sleeve gastrectomy
ASMBS	American society for metabolic and Bariatric surgery.
BMI	Body mass index
CSA	Cross sectional area
DI	Distensibility index
EBMIL %	Excess body mass index loss percentage
EGJ	Esophageo gastric Junction
ERD	Erosive reflux disease
EWL %	Excess weight loss percentage
FLIP	Functional lumen imaging probe
GBP	Gastric by pass.
GERD	Gastroesophageal reflux disease.
GIT	Gastrointestinal tract
GLP 1	Glucagon like peptide 1
H. pylori	Helicobacter pylori
HH	Hiatus Hernia

HRM	High resolution manometry
IFSO	International federation for the surgery of obesity and metabolic disorders
LAF/ PCA	Laprosopic anterior fundoplication with posterior crura approximation
LES	Lower esophageal sphincter.
LESP	Lower esophageal sphincter pressure
LMGB	Laprosopic mini gastric bypass
LSG	Laprosopic sleeve gastrectomy.
MII- PH	Multi channel intraluminal impedance PH monitoring
Mo	Month
N	Number
NERD	NON _ erosive reflux disease
NPY	Neuropeptide Y
POEM	Per oral endoscopic myotomy
PPIs	Proton pumb inhibitors
PRS	Intra bag pressure
PY	Peptide Y
Re-SG	Re sleeve gastrectomy
RGYB	Roux-en-Y gastric by pass.

SCJ	Squamo columnar Junction
T2DM	Type 2 diabetes mellitus
TIF	Transoral incisionless fundoplication
TLESRs	Transient lower esophageal sphincter relaxations
UES	Upper esophageal sphincter.
UGIES	Upper gastrointestinal endoscopies
VBG	Vertical banded gastroplasty
LAGB	Laposcopic gastroplasty banded

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Introduction

The prevalence of obesity has reached epidemic proportion. This disease has serious physical, psychological and economic implications. Bariatric surgery is the most reliable intervention available to obese patients. **(Laffin, 2013)**

Advances in laparoscopic techniques and safety measures in the past decade have decreased associated mortality and morbidity. **(Banka et al., 2012)**

Sleeve gastrectomy was developed in 1988 as the initial procedure in a staged approach to patients with morbid obesity. Sleeve gastrectomy has gained popularity since then as a definitive bariatric surgical procedure. **(Colquitt et al., 2009)**

Sleeve gastrectomy involves resection of the greater curvature of the stomach and preservation of the pyloric valve and gastro-esophageal junction. This maintains patency of the proximal alimentary tract and provides a restrictive and biochemical impetus for weight loss .An advantage of sleeve gastrectomy compared to other bariatric procedures is that it does not involve an anastomosis. **(Melissas et al., 2011)**

Gastroesophageal reflux disease is defined as the condition developing when reflux of stomach contents causes the characteristic symptoms; retrosternal burning (heartburn) and regurgitation. **(Jelmer E.Oor et al., 2016)**

The mean prevalence of postoperative Gastroesophageal reflux disease was reported to occur in 7.8%-20% of cases at 12-24postoperative months. **(Daes et al., 2012)**

In reported long term follow up studies presented by Abraham et al., the long term morbidity described for sleeve gastrectomy showed the most prevalent, severe gastro esophageal reflux disease, to be as high as 23%.**(Abraham et al., 2012)**

Trying to explain post sleeve gastrectomy gastro esophageal reflux disease, some studies have suggested that anatomical changes associated with Sleeve gastrectomy may exacerbate gastro esophageal reflux disease symptoms or induce de novo gastro esophageal reflux disease in previously asymptomatic patients. **(Dupree et al., 2014)**

The factors exacerbate gastro esophageal reflux disease include reduction of lower esophageal sphincter pressure, possibly from divisions of ligaments and blunting of angle of his, reduction in gastric compliance, increased sleeve pressure with an intact pylorus due to the use of bougie <40 Fr, decreased sleeve volume and distensibility, and dilated upper part of the final shape with a relative narrowing of the midstomach without complete obstruction. **(Soricelli et al., 2013)**

Gastroesophageal reflux disease should be carefully defined with an exhaustive workup including upper GI

endoscopy, high definition manometry, and PH study. **(Del Genio et al., 2014)**. Computerized scan volumetric assessment of the gastric sleeve should be performed. **(Nedelcu et al., 2014)**

Surgery is consider as a last option for treatement of gastroesophageal reflux disease complicating laproscopic sleeve gasterectomy.**(Del Genio et al., 2014)**

Aim of the Work

The aim of this essay is to investigate the status of gastro esophageal reflux disease after laparoscopic sleeve gastrectomy.