

Abstract

Background: The prevalence of gastroesophageal reflux disease (GERD) has been increasing in the Western world, and it is presently as high as 20%. At the same time, the prevalence of obesity has reached epidemic proportions, being almost 30% at the end of the last century. Some studies have suggested a possible link between these two occurrences. A high body mass index (BMI) increases the risk of GERD 3–5 and there is a positive relationship between increasing BMI and prevalence of GERD and its complications.

Aim of Study: This work aims to study the effect of gastric bypass on GERD in obese patients, regarding morbidity and mortality outcomes.

Methodology: Gastroesophageal reflux disease (GERD) is a chronic symptom of mucosal damage caused by stomach acid coming up from the stomach into the esophagus. The prevalence of gastroesophageal reflux disease GERD has been increasing in the Western world. The prevalence of obesity has reached epidemic proportions. A high body mass index (BMI) increases the risk of GERD and there is a positive relationship between increasing BMI and prevalence of GERD and its complications.

Conclusion: Mini gastric bypass (MGB) is a modification of Mason loop gastric bypass with a longer lesser curvature-based pouch. Although this procedure has an attractive advantage compared to the gold standard Roux-en-Y gastric bypass (RYGB) with one less anastomosis, but symptomatic biliary gastritis and oesophagitis, requiring revisional surgery, have been reported in the literature.

Keywords: Gastric Bypass, GERD , Obese Patients

Contents

Subjects	Page
List of abbreviations.....	II
List of figures.....	IV
• Introduction	1
• Aim of study	5
• Anatomy of Gastro-Esophageal Junction	6
• Epidemiology of GERD	13
• Pathophysiology of GERD	15
• Diagnosis of GERD	22
• Non-surgical Methods of Treatment of GERD in Obese Patients	38
• Anti-reflux Surgical Options of GERD	44
• Bariatric Surgical Options for GERD in Obese Patients	53
• Summary	73
• References	76
• Arabic Summary	

List of Abbreviations

BMI	: Body mass index
BPD-DS	: Biliopancreatic diversion with duodenal switch
EGJ	: Esophagogastric junction
ELF	: Endoluminal fundoplication
GERD	: Gastroesophageal reflux disease
GI	: Gastrointestinal
LAF	: Laparoscopic anterior fundoplication
LDF	: Laparoscopic Dor fundoplication
LES	: Lower esophageal sphincter
LGB	: Laparoscopic gastric bypass
LNF	: Nissen fundoplication
LPF	: Laparoscopic posterior fundoplication
LSG	: Laparoscopic sleeve gastrectomy
LTF	: Laparoscopic Toupet fundoplication
MGB	: Mini gastric bypass
NERD	: Non-erosive reflux disease
OSA	: Obstructive sleep apnea

List of Abbreviations

OTC	: Over the counter
PPIs	: Proton pump inhibitors
RYGB	: The Roux-en-Y gastric bypass
TLESR	: Termed transient lower esophageal sphincter relaxation

List of Figures

<u>No.</u>	<u>Figure</u>	<u>Page</u>
<u>1</u>	Anatomy of gastro-esophageal junction	9
<u>2</u>	Blood supply and lymphatic drainage of the esophagus	11
<u>3</u>	Epidemiology of GERD and its complications among population	14
<u>4</u>	Pathophysiology of GERD	17
<u>5</u>	Peptic esophagitis seen by upper GI endoscopy	25
<u>6</u>	Los Angeles Classification of reflux esophagitis	27
<u>7</u>	Savary Miller classification of reflux esophagitis	28
<u>8</u>	Complications of GERD	29
<u>9</u>	Normal esophagus versus Barret's esophagus	31
<u>10</u>	PH monitoring to detect GERD	35
<u>11</u>	Nissen Fundoplication	51
<u>12</u>	Various types of anti-reflux surgeries	52
<u>13</u>	Roux en Y gastric Bypass surgery diagram	67
<u>14</u>	Laparoscopic Roux en Y gastric bypass	69
<u>15</u>	Minigastric bypasss diagram	72



Introduction





Aim of study





Anatomy of Gastro- Esophageal Junction





Epidemiology of GERD





Pathophysiology of GERD





Diagnosis of GERD





Non-surgical methods of treatment of GERD in obese patients





Anti-reflux Surgical Options of GERD





Bariatric Surgical Options for GERD in Obese Patients





Summary

