

Esophagectomy After Weight-Reduction Surgery

Katy A. Marino, MD, Benny Weksler, MBA, MD*

KEYWORDS

• Esophagectomy • Esophageal adenocarcinoma • Bariatric surgery • Gastric bypass

KEY POINTS

- The incidence of obesity is increasing worldwide.
- Combined with reflux, male sex, and white race, obesity is a known risk factor for esophageal cancer.
- The incidence of esophageal cancer after bariatric surgery is unknown.
- Esophagectomy can be performed after bariatric surgery in many patients.
- There is a paucity of information on the incidence and best approach to esophagectomy after bariatric surgery.

INTRODUCTION

The incidence of esophageal cancer increased more than 350% from the 1970s to the 1990s, mostly because of an increase in the incidence of esophageal adenocarcinoma.¹ Fortunately, this rapid increase in incidence seems to have slowed down in recent years.² Half of patients diagnosed with esophageal adenocarcinoma (50%) are obese, smoke cigarettes, or drink alcohol, and up to 87% of patients with esophageal squamous cell carcinoma smoke or drink alcohol.³ In particular, increases in body mass index are correlated with an increased risk of esophageal adenocarcinoma.⁴

Obesity has become epidemic throughout the world with increasing prevalence on all continents.⁵ In 2007, it was estimated that 35% of white men and women, and up to 55% of black women in the United States would be obese by 2010.⁶ These predictions have turned out to be

surprisingly accurate. The most recent national data on obesity (2011–2014) indicate that the prevalence of obesity among adults in the United States is 36.5%, with a prevalence of 34.5% in non-Hispanic white adults and a prevalence of 56.9% in black women.⁷ The number of obese patients who undergo bariatric surgery, primarily Roux-en-Y gastric bypass (RYGB), increased from less than 7000 per year in 1996 to 45,473 in 2001 and seems to have plateaued at 113,000 patients per year in 2010.^{8,9} The salutary effects of bariatric surgery are well established.^{10–12}

The incidence of esophageal cancer arising after bariatric surgery is unknown. A recent systematic review of the literature found only 11 reported patients with esophageal cancer arising after bariatric surgery, and only seven underwent esophagectomy after bariatric surgery.¹³ Our own literature review identified nine additional published cases, and we have personally performed

Disclosures: B. Weksler is a Proctor for Intuitive Surgery and a Consultant for Bard. Division of Thoracic Surgery, University of Tennessee Health Science Center, 1325 Eastmoreland Avenue, Suite #460, Memphis, TN 38104, USA

* Corresponding author.

E-mail address: bweksler@uthsc.edu

Thorac Surg Clin ■ (2017) ■–■

<https://doi.org/10.1016/j.thorsurg.2017.08.006>

1547-4127/17/© 2017 Elsevier Inc. All rights reserved.

esophagectomy on two patients after bariatric surgery (Table 1).

Currently 95.7% of bariatric procedures are performed laparoscopically and the most common procedures worldwide are RYGB (45%), sleeve gastrectomy (SG; 37%), and band gastroplasty (BG; 10%).¹⁴ Each of these procedures offers challenges for the surgeon during esophagectomy.

TECHNICAL CONSIDERATIONS

We briefly describe each of the common, bariatric procedures to provide an understanding of the surgical anatomy after each procedure as it relates to esophagectomy.

Roux-en-Y Gastric Bypass

The technique for laparoscopic RYGB has been described and is uniform.¹⁵ Briefly, a small proximal gastric pouch is created by completely dividing it from the rest of the stomach. Commonly, a biliary-pancreatic limb is created

50 cm from the ligament of Treitz and is anastomosed to the Roux limb with a length of approximately 75 to 100 cm. The Roux limb is positioned either in the retrocolic and retrogastric position or in the antecolic and antegastric position.¹⁶ The Roux limb is then anastomosed to the proximal gastric pouch (Fig. 1). It is important to remember that during RYGB in the retrocolic fashion, there are three mesenteric defects that are closed and need to be addressed during esophagectomy: (1) a defect in the transverse mesocolon just lateral to the ligament of Treitz, (2) the mesentery of the small bowel, and (3) Petersen defect (the space behind the Roux limb). In antecolic RYGB only the mesentery of the small bowel and Petersen defect are closed.

When performing an esophagectomy after RYGB, the stomach is usually suitable for use as a conduit (Fig. 2). The gastroepiploic arcade is usually undisturbed, and an adequate length of mobile gastric conduit is obtained, even for a cervical anastomosis. There is one report of a divided gastroepiploic arcade after RYGB in a patient

Table 1
Additional patients who underwent esophagectomy after a bariatric procedure

Study Author	Number of Patients	Age (y)	Prior Bariatric Procedure	Time Between Bariatric Procedure and Esophagectomy	Histology	Esophageal Replacement Conduit	Follow-up ^a (mo)
Allen et al, ²¹ 2004	2	54, 50	RYGB	21 y, 14 y	EAC	Jejunum, stomach	13, ^b 72
Trincado et al, ²² 2005	1	52	BG followed by RYGB	5 y	EAC	Stomach	12
Nguyen et al, ¹⁹ 2006	1	56	RYGB	5 y	EAC	Stomach	3.5
Melstrom et al, ³⁰ 2008	2	55, 58	RYGB	2 mo, 3 y	EAC, HGD	Stomach	60, 24
Kuruba et al, ³⁹ 2009	1	45	RYGB	20 mo	EAC	Stomach	NR
Rossidis et al, ¹⁷ 2014	5	57	RYGB	NR	EAC	Stomach (n = 4) Colon (n = 1)	NR
Boules et al, ³³ 2016	2	40, 50	BG	NR	Achalasia	Stomach	36
Ellison et al, ¹⁸ 2016	2	66, 49	RYGB	3 mo, 4 mo	EAC	Stomach	19, 36
Weksler and Sullivan, ³⁵ 2017 ^c	2	53, 58	RYGB and BG	3 y, 5 y	EAC	Stomach	12, 14

Abbreviations: BG, band gastroplasty; EAC, esophageal adenocarcinoma; HGD, high-grade dysplasia; NR, not reported.

^a Except as noted, all patients were alive at the last recorded follow-up.

^b This patient died 13 months after esophagectomy.

^c Our previously unpublished results.

Download English Version:

<https://daneshyari.com/en/article/8820798>

Download Persian Version:

<https://daneshyari.com/article/8820798>

[Daneshyari.com](https://daneshyari.com)