

## Conversion surgery following sleeve gastrectomy

**Vanessa Boudreau MD, FRCSC; Dimitry Terterov MD, FRCSC; Karen Barlow HonsBSc; Scott Gmora MD, FRCSC; Dennis Hong MD, FRCSC; Mehran Anvari OONT, MB, BS, PhD, FRCSC, FACS.**

*Center for Minimal Access Surgery, McMaster University, Ontario, Canada*

**Introduction:** Vertical Sleeve Gastrectomy (VSG) is becoming an increasingly popular surgical treatment for morbid obesity compared to Roux-en-Y Gastric Bypass (RYGB) in North America. Few studies have looked at conversion surgery following VSG.

**Methods:** Data collected in the Ontario Bariatric Registry between 2010–2018 was used for this retrospective study to determine conversion rates and outcomes of conversion surgery in VSG patients at 3-year follow-up.

**Results:** Of 8215 patients who had bariatric surgery by 2015 (7178 RYGB, 1037 VSG), follow-up data were available for 2384 RYGB and 236 VSG patients at 3 years. 9 RYGB patients (0.4%) underwent conversion surgery compared to 107 VSG (45.3%). Reasons for VSG conversion were inadequate weight loss or weight regain in 48 patients (44.9%), planned two-stage duodenal switch (DS) in 41 patients (38.3%) and complications in 18 patients (16.8%). Outcomes and complications of VSG conversions for inadequate weight loss and weight regain only (excluding planned two-stage DS) at 3-year follow-up are as follows:

	VSG to RYGB	VSG to DS	p-value
<b>n</b>	27	19	
<b>BMI at conversion</b>	55.5	65.1	p<0.05
<b>GERD at conversion n(%)</b>	18 (66.7)	4 (21.1)	p<0.05
<b>Weight loss</b>			
Decrease in BMI	10.8	20.3	p<0.05
<b>Complications n(%)</b>			
Mortality	0	0	NS
Overall complications	2(7.4)	0	NS
Leak	0	0	NS
Stenosis	0	0	NS
Hernia	1(3.7)	0	NS
Wound infection	1(3.7)	0	NS

**Conclusion:** The main reason for VSG conversion is weight regain or inadequate weight loss. Among this population, DS has higher weight loss than RYGB while having similar complication rate.