

ROUX-EN-Y gastric bypass vs. vertical sleeve gastrectomy for diabetic patients: 5 year outcomes.

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Introduction: Bariatric surgery is a known effective treatment for diabetes in obese patients.

Methods: Analysis of the Ontario Bariatric Registry data was performed to compare long term outcomes in diabetic patients who underwent Roux-en-Y Gastric Bypass (RYGB) or Vertical Sleeve Gastrectomy (VSG) between 2010-2018. Intention-to-treat analysis was performed. Results include conversions and revisions.

Results: Of the 5,101 diabetic patients that underwent bariatric surgery, 4,244 (83%) had RYGB (BMI 47.6, age 49.1; 75% female) and 847 (16.6%) had VSG (BMI 52.5, age 52.5; 69.1% female). At 3 years, 786 patients with RYGB and 92 patients with VSG were available for follow-up, compared to 198 and 17 patients at 5 years. 38 VSG patients required a conversion due to weight regain/ineffective weight loss, compared to 2 RYGB patients.

		RYGB	VSG	p-value
Conversion Rate	3 years	0.3%	32.6%	<0.05
	5 years	0.0%	47.1%	<0.05
%EWL	3 years	63.7%	43.6%	<0.05
	5 years	60.3%	52.9%	NS
Stopped all Diabetes Medication	3 years	69.8%	66.7%	NS
	5 years	65.2%	56.2%	NS
HbA1c	3 years	6.1%	6.3%	<0.05
	5 years	6.3%	6.5%	NS
Remission (HbA1c <6%)	3 years	51.5%	45.5%	NS
	5 years	47.3%	50%	NS
Partial Remission (HbA1c <6.5%)	3 years	15.5%	15.6%	NS
	5 years	16.3%	7.1%	NS

Conclusions: VSG is associated with high conversion rate to either RYGB or DS. Including converted patients, diabetic control for original VSG patients is comparable to bypass patients at 5 years. Excluding the converted group, RYGB provides superior diabetic control to VSG at 5 years.