

Real-world Weight Loss Outcomes of Semaglutide in Patients with Overweight and Obesity after Bariatric Surgery

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BACKGROUND

- Bariatric surgeries have shown to be the most effective weight loss intervention in patients with obesity
- Many patients may experience weight recurrence
- Recent randomized trials demonstrated the effectiveness of semaglutide
- Little is known about real-world outcomes of semaglutide use in patients with overweight and obesity who underwent bariatric surgeries

METHODS

- Retrospective data collection on the use of semaglutide in adults who underwent bariatric surgery (i.e., Roux-en-Y gastric bypass [RYGB] or sleeve gastrectomy [SG])
- Inclusion Criteria:
 - 1. BMI $\geq 27 \text{ kg/m}^2$
 - 2. Semaglutide use for \geq 3 months after surgery
- Exclusion Criteria:
 - 1. Taking other anti-obesity medications
 - 2. Active malignancy
- **Primary end point:** TBWL%
- Secondary end points:
 - 1. TBWL% in RYGB and SG
 - 2. Proportion of patients achieving \geq 5% and \geq 10% TBWL%
- Continuous end points were analyzed using matched paired t-test



Figure 1: Total body weight change percentage (TBWC%) (A categorical TBWL% at 3 and 6 months (**B**)

Demographic information	All patients
N	24
Age, years (SD)	48.9 (10)
Sex, Female (%)	23 (96)
Race, White (%)	18 (75)
Bariatric Surgery	
Roux-en-Y gastric bypass, n (%)	16 (67)
Sleeve gastrectomy, n (%)	8 (33)
Baseline Clinical and laboratory information	
Weight, kg (SD)	118.6 (42.5)
BMI, kg/m^2 (SD)	44.3 (15.4)
Overweight, n (%)	1 (4)
Obesity Class 1, n (%)	7 (29)
Obesity Class 2, n (%)	4 (17)
Obesity Class 3, n (%)	12 (50)
Obesity Comorbidities	
Dyslipidemia, n (%)	6 (25)
Diabetes mellitus, n (%)	2 (8.3)
Hypertension, n (%)	7 (29.2)
GERD, n (%)	9 (37.5)
Obstructive sleep apnea, n (%)	7 (29.2)
NAFLD, n (%)	2 (8.3)
Visits Information	
Patients with dietitian visits, n (%)	8 (33.3)
Patients with psychologist visits, n (%)	2 (8.3)
Patients with 3 months follow-up, n (%)	24 (100)
Patients with 6 months follow-up, n (%)	13 (54)

 Table 1: Demographic and clinical information



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	RESULTS
	• A total of 24 patients were included in the analysis (Table 1)
;	• Median number of years between the bariatric surgery and semaglutide initiation: 8 years
	• Weight loss of 6.3 kg equivalent to a TBWL% of 5.7% (n= 24; p<0.001) at 3 months and a weight loss of 15.0 kg equivalent to 13.0% (n=13; p<0.001) at 6 months
1	• RYGB: TBWL% of 5.5% (n=16) and 13.7% (n=8)
/o	• SG: TBWL% of 6.1% (n=8) and 11.9% (n=5)
), and	 At 3 months TBWL%: 15/24 patients (63%) achieved ≥5% TBWL while 3/24 (13%) achieved ≥10% TBWL%
	• At 6 months TBWL%: 13/13 patients (100%) achieved ≥5% while 7/13 (54%) achieved ≥10% TBWL%
	• In our cohort, 10/24 (42%) patients reported experiencing side effects with nausea/vomiting (25%) being the most common
	CONCLUSION
	• This study demonstrates significant weight loss outcomes of semaglutide in patients after undergoing bariatric surgery
	• More studies with larger sample size are needed to further evaluate the effectiveness of this medication to counteract the weight recurrence after bariatric surgeries