

Naltrexone/Bupropion, Liraglutide or Semaglutide as Adjuvant Therapy after Bariatric-Metabolic Surgery

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I have the following potential conflicts of interest to report:

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Background

- Weight regain or inadequate weight loss after bariatric surgery is not uncommon¹.
- Other than lifestyle modification or revisional surgery fewer adjuvant therapies exist.
- Weight loss medications to prevent and manage excess weight post bariatric surgery are now being recommended²
- However, there is a paucity of published literature on utilizing weight loss medication as an adjunct to bariatric surgery

1; Maciejewski et al .2016; 15(11); 1046-1055.

2; Wharton et al. (2019) 8:1, 184-191.

Aim

To determine the safety and efficacy of weight loss medications following weight regain and/or inadequate weight loss after bariatric surgery.



Methods

- Retrospective analysis of a prospectively collected data base
- Weight loss medications used post bariatric surgery:
 - naltrexone/bupropion (8/90mg to 32/360mg po dly), or
 - liraglutide (1.2 to 3.0mg s/c dly), or
 - semaglutide (0.5 to 1.0mg s/c wkly)
- Weight regain and/or inadequate weight loss following adjustable gastric banding (LAGB), sleeve gastrectomy (LSG), one anastomosis gastric bypass (OAGB)

Methods

- Anthropometric data
- Type of bariatric surgical procedure
- Weight and BMI at the follow time points:
 - Pre surgery
 - Lowest weight post surgery
 - At start of weight loss medication
 - Current weight post weight loss medication
- Time of commencement of weight loss medication
- Medication side effects or adverse events



Methods:

Indications for anti obesity medications

- Suboptimal or partial response post bariatric surgery
 - EWL <50% or <20% body weight³
- “Significant” (>5%) weight regain from their nadir weight
- Lack of appetite suppression or inadequate satiety
- Desire to loose more weight

3. Gumbs AA, Pomp A, Gagner M.
Obes Surg 2007;17(9):1137–45.



Statistical Analysis

- Data are reported as categorical values using either parametric or non-parametric statistics
- Excel and Prism for analysis of data



Results;

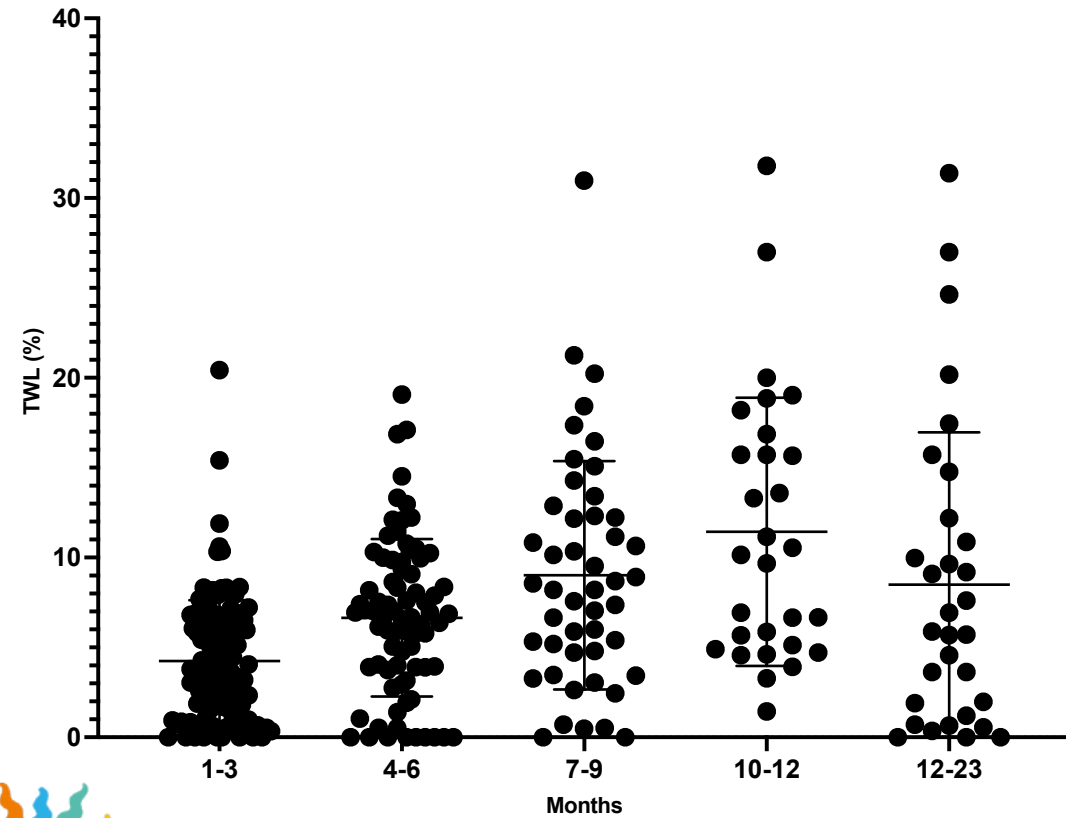
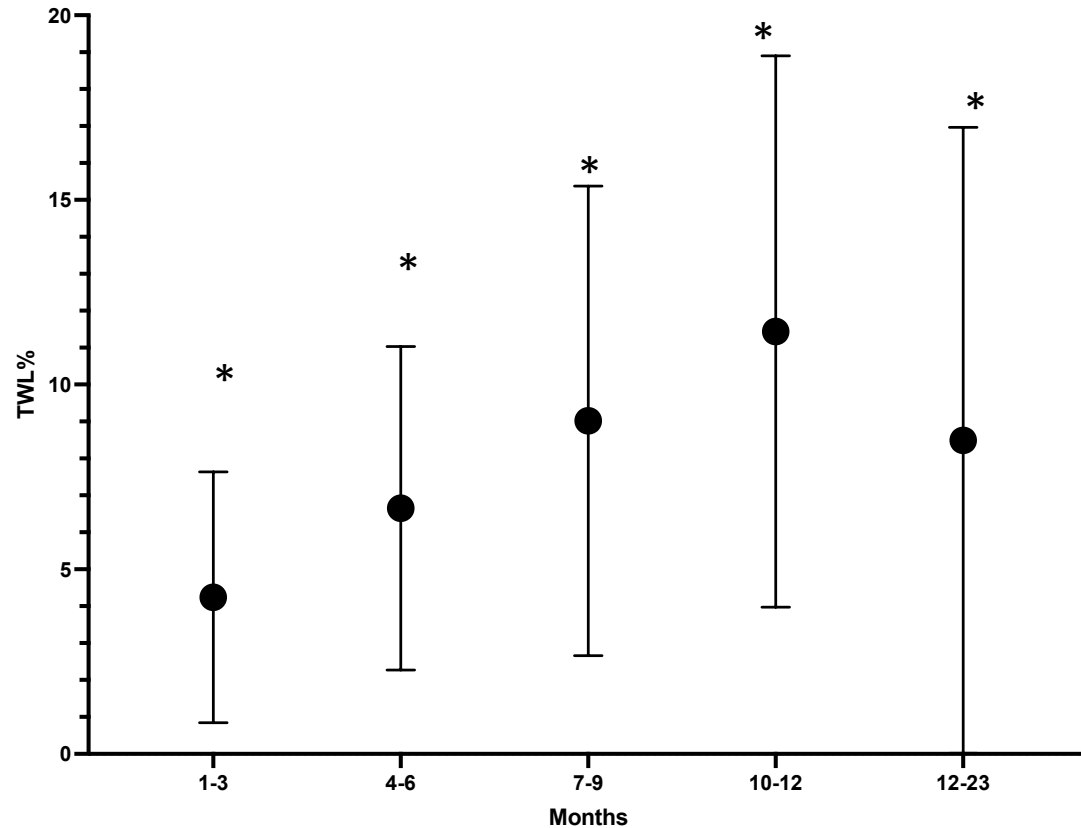
Baseline demographics and clinical characteristics (mean +/- SD)

	Adjuvant Anti obesity medications
Sample size	136
Age (yrs)	48.3 +/- 9.7 yrs
Female (%)	92.6%
Weight (kg)	94.4+/- 20.3
BMI (kg/m ²)	35.1+/-6.6
Mean weight regain post Surgery (Bariatric surgery)	9.2 +/- 7.8kg (Range: up to 39kg) (ie; 28.9% of surgical weight loss) (31.7kg or 27.2% TWL)
Time of onset of AOM	3.1 – 4.5yrs (95% CI)
Types of AOM	20.6% Liraglutide
	38.3% Bupropion/Naltrexone
	41.2% Semaglutide

Bariatric Surgery procedure type	
Sleeve Gastrectomy	58.5%
Gastric Banding	27.4%
One Anastomosis Gastric Bypass	4.1%

Results; weight loss data (% TWL)

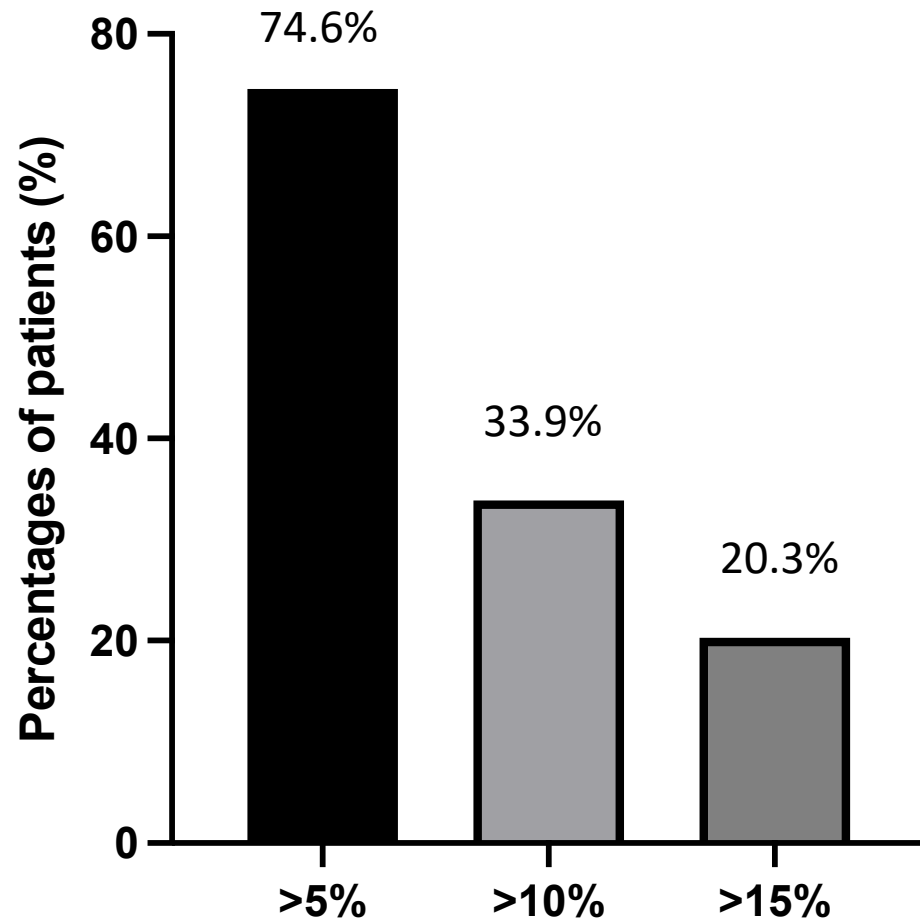
(mean +/- 2SD, * p<0.001)



Median % weight loss; 7% (3.7 -10.7) at median follow up of 6 mths (3-12); 25-75th percentile.

Results; Categorical weight loss

Proportion with $\geq 5\%$, $\geq 10\%$ or $\geq 15\%$ weight loss



Side Effect Profile

- Adverse side effects were minor and reflected clinical trial non-surgical cohorts



Strengths

- Large sample size
- Use of several anti obesity medications
- Inclusion of patients who had undergone all three most common bariatric surgical procedures.



Limitations

- Lack of a placebo control group for comparison
- We included patients who lost <5% WL as deemed to be clinically significant. This may have therefore underestimated the actual weight lost.



Conclusions

- Weight loss medications confer additional significant weight loss in patients with weight regain or inadequate weight loss post bariatric surgery.
- We recommend familiarisation of these medications by all bariatric centres and should be considered as part of bariatric after care.
- Furthermore, more rigorous studies are required to elucidate the exact timing of when best to prescribe weight loss medication.

