Effectiveness and Safety of Weight Loss Medications in Ulcerative Colitis

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INTRODUCTION

BACKGROUND

- The prevalence of obesity in ulcerative colitis (UC) is rising in parallel to that of the general population, with recent rates estimated between 15-40%.
- Obesity may negatively impact UC outcomes.
- While studies are available that have assessed the safety and efficacy of bariatric surgery in the obese IBD population, there is very little data examining the effectiveness and safety of weight loss pharmacotherapy.

OBJECTIVE

- We aimed to review the effectiveness and safety of weight loss medications in the UC population.

METHODS

PATIENT SELECTION

- UC patients with prior use of FDA-approved weight loss medication (liraglutide, semaglutide, orlistat, phentermine-topiramate, phentermine, bupropion-naltrexone) were identified via EMR at Mayo Clinic between January 2001 and January 2022.
- Patients with use of multiple obesity medications were excluded.

OUTCOMES

- **Primary outcome** – Percent weight loss at 6 and 12 months compared to baseline.
- **Secondary outcome** – Medication side effects, adverse events, and UC flares (defined as change or escalation in UC therapy, corticosteroid use, hospitalization, or surgery).

ANALYSIS

- Descriptive statistics were utilized for all outcomes.

RESULTS

Figure 1: Percent Weight Loss in Ulcerative Colitis Patients Compared to Baseline

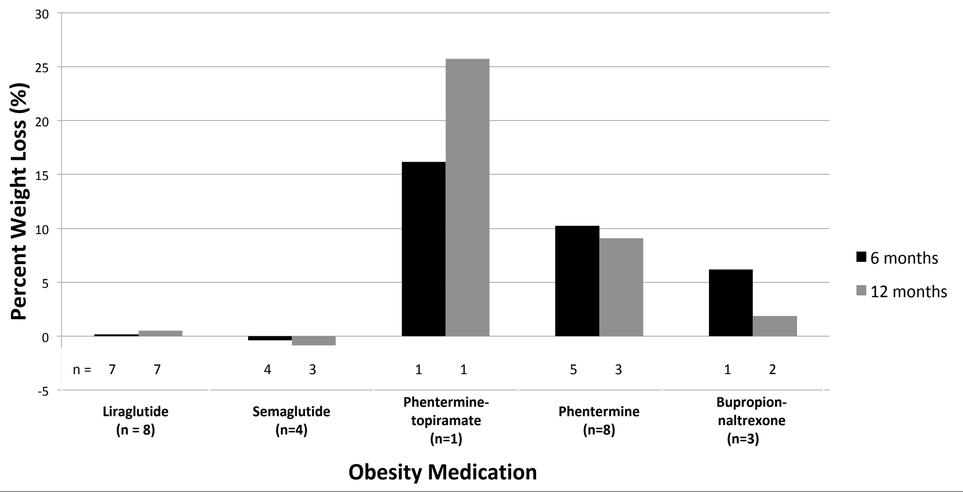

Table 1: Safety of Obesity Medication in Ulcerative Colitis Patients

	Liraglutide (n=8)	Semaglutide (n=4)	Phentermine-topiramate (n=1)	Phentermine (n=8)	Bupropion-naltrexone (n=3)
Dose and Duration of Use					
Maximum dose	1.2 mg (2/8) 1.8 mg (4/8) 3.0 mg (2/8)	0.5 mg SQ (2/4) 1.0 mg SQ (1/4) 14 mg oral (1/4)	15mg-50mg BID	15 mg (1/8) 30 mg (1/8) 37.5 mg (6/8)	16-180 mg (1/3) 25-150 mg (1/3) 32-360 mg (1/3)
Continued use at 12 months, n (%)	7 (87.5)	3 (75)	1 (100)	3 (37.5)	2 (66.7)
Medication-Related Adverse Events					
Side effects, n	1	1	0	3	0
Description of side effects	Diarrhea	Diarrhea	-	Insomnia, constipation, headache	-
Drug discontinuation due to side effects, n	1	0		0	-
Serious adverse events (SAEs), n	0	0	0	1	0
Description of SAE	-	-	-	CVA	-
UC-Related Complications					
UC flare, n	0	2	0	0	0
Corticosteroid used	0	2	0	0	0
Change in IBD meds	0	1	0	0	0
Hospitalization	0	0	0	0	0
Surgery	0	0	0	0	0

CVA: cerebrovascular accident

RESULTS

- The liraglutide, phentermine-topiramate, phentermine, and bupropion-naltrexone groups demonstrated weight loss when evaluating the mean percent weight loss in those with follow-up at 12 months (0.5%, 25.7%, 9.1%, 1.9% respectively).
- Six liraglutide patients (75%) received diabetes dosing. Those receiving adequate obesity dosing (n=2) achieved higher mean weight loss at 3.2%.
- Two UC flares occurred in the semaglutide group in patients who had active disease at baseline.

CONCLUSION

- The liraglutide (particularly those receiving obesity-approved doses) and bupropion-naltrexone groups experienced <5% weight loss at 12 months, while the phentermine-topiramate and phentermine groups achieved >5% weight loss at 12 months.
- Reported side effects appeared similar to those of the general population.
- Medical therapy may be a viable adjunct to lifestyle modification, especially in those who do not qualify for bariatric surgery.
- Future directions:
  - Inclusion of Crohn's disease patients
  - Prospective studies to evaluate efficacy and safety (medication side effects and risk of IBD flare) of obesity pharmacotherapy.

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