Retrospective review of seven patients with obesity simultaneously treated with a combination of a glucagon-like peptide-1 receptor agonist and a meal replacement product

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Introduction

Meal replacement products (MRPs) facilitate significant weight loss via calorie restriction while providing essential nutrients such as protein, fibre, vitamins and minerals. They are included in weight management guidelines internationally and are used as either a total or partial diet replacement. Challenges include low compliance, adverse events and risk of weight regain.

The use of glucagon-like peptide -1 receptor agonists (GLP-1 RAs) has increased over the past decade and also result in significant weight loss due to reduced appetite and slowed gastric emptying. Challenges include adverse events, high cost and weight rebound after discontinuation.

Combining GLP-1 RAs and MRPs may lead to more significant and sustainable weight loss while providing appetite suppression and nutritional control. This study reports on real world clinical experience with the combined use of MRPs and GLP-1 RAs for weight management

Methods

The study design is a retrospective chart review of data from individuals with obesity who received combined treatment of GLP-1 RAs and MRPs (partial or total diet replacement). Individuals received combined treatment of 1 of the following:

1) MRP use before starting a GLP-1 RA, and continuing on a combined regimen

2) initiation of MRPs and a GLP-1 RA concomitantly, or

3) addition of MRPs to ongoing GLP-1 RA treatment.

Data collected included frequency/amount of MRPs used, dose/type of GLP-1 RA used, duration of combined use, and occurrence of adverse events.

Results

Eleven individuals were included, with 7 of these having both MRPs and GLP-1 RAs initiated at the same time (method 2 as above). They used either semaglutide or liraglutide with daily MRPs for an average duration of 12 months.

An average weight loss of 24.2% was reported in the cohort of 7, with 5 individuals experiencing GLP-1 RA-related adverse events. One discontinued the GLP-1 RA due to cost, and 2 discontinued the MRPs due to cost and taste-fatigue.

Noteworthy individual observations included improvements in HbA1c, lipid parameters, knee pain, blood pressure and obstructive sleep apnoea symptoms.

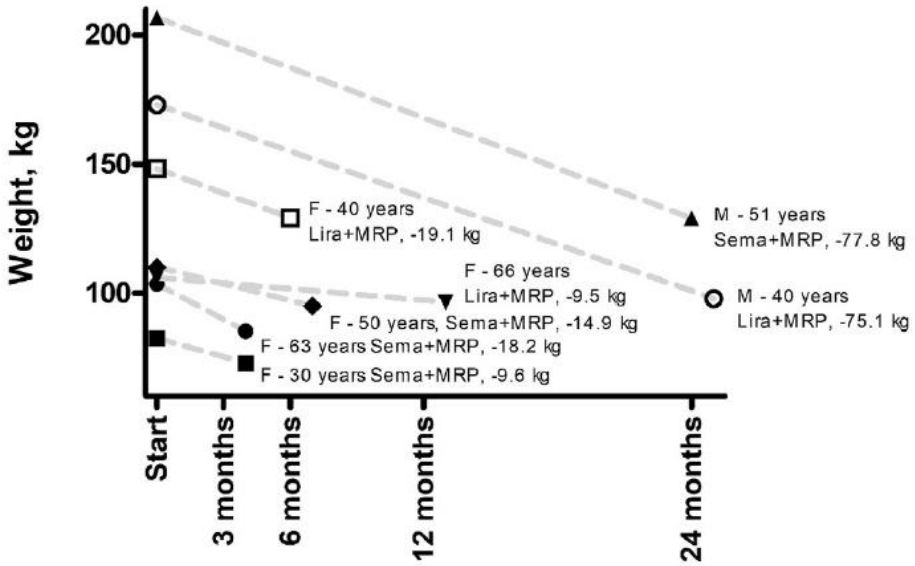

Fig. 1. Weight trajectories (kg) of individuals starting Optifast MRPs and GLP-1 concomitantly
AbbreviationsF – female, M – male, Lira – liraglutide, Sema – semaglutide, MRPs – meal replacement products.

Discussion

This retrospective review illustrates that sequential or concomitant use of MRPs and GLP-1 RAs for weight management is feasible in a real-life setting, and that this combination might offer potential advantages. The average weight loss of 24.2% is typically larger than what is seen with each modality individually. There was no increase in adverse events compared to what is reported from GLP-1 RAs on their own.

Whilst several reports demonstrate that a combined approach has positive outcomes on weight management, the study duration is mainly short-term. T. Future research should evaluate if weight reduction induced with GLP-1 RAs could be maintained in the long-term with MRPs.

Conclusion

This study suggests that MRPs can be initiated concomitantly with GLP-1 RAs for weight management, potentially enhancing weight-loss effectiveness and long-term adherence. Further and larger studies are needed to clarify additional benefits.

Limitations

This assessment was based on a limited number of cases, and interpretation needs caution. Duration of intervention was highly variable, and there was a lack of information on confounding parameters of importance (e.g. nutritional and exercise habits).

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