Added weight loss effects with Dapagliflozin and GLP-1 agonists

Andrew P McGovern[1,2] Nina Dutta[1,2] Kenneth Watters[1-3] Neil Munro[1-3] Michael D Feher[1-3]

[1]*Beta Cell Centre for Diabetes, Chelsea and Westminster Hospital*
[2]*Diabetes Therapies Evaluation Network (DTENet), Chelsea*
[3]*Clinical Sciences Research Institute, Warwick University*

Diabetes Centre
Chelsea and Westminster Hospital

Chelsea and Westminster Hospital
NHS Foundation Trust

Background

Weight control is a key management target for many patients with type 2 diabetes. Dapagliflozin was the first in class sodium-glucose cotransporter 2 (SGLT2) inhibitor to be licensed in UK as a glucose lowering agent in Type 2 diabetes.

Clinical trial data demonstrate weight loss with dapagliflozin [1-4] and glucagon-like peptide-1 (GLP-1) agonists [5]. However no analysis to date has looked for synergistic weight loss effects with these two drug classes. We examine this effect here.

Aims

Compare weight loss in patients on dapagliflozin with those on dapagliflozin and a GLP-1 agonist in the real world setting.

Methods

We performed **a retrospective systematic case-note audit** of all patients started on dapagliflozin in the Beta Cell Diabetes Centre at Chelsea and Westminster hospital [6]. Here we report an ad-hoc analysis of data collected. We investigated the combined weight loss effects of dapagliflozin and GLP-1 agonists in this population.

A Microsoft Access™ database was designed to ensure clear and consistent data capture. Regular assessments of patients, conducted during routine clinical care were recorded within the database.

Results

88 people with type 2 diabetes were included in the final analysis. The mean duration of follow-up was 152 days (range 7-431; SD 115).

We found that dapagliflozin was as effective in the 'real world' setting as in clinical trials (full results: McGovern et al. [6])

Mean weight change

The mean weight change was -1.4kg (SD 2.8) in people on dapagliflozin and -2.8kg (SD 3.6) in people on dapagliflozin and a GLP-1 agonist (p=0.05). The mean weight change in weight responders was -3.0kg (SD 2.4) and -7.2kg (SD 3.1) respectively in the two groups (p=0.02).

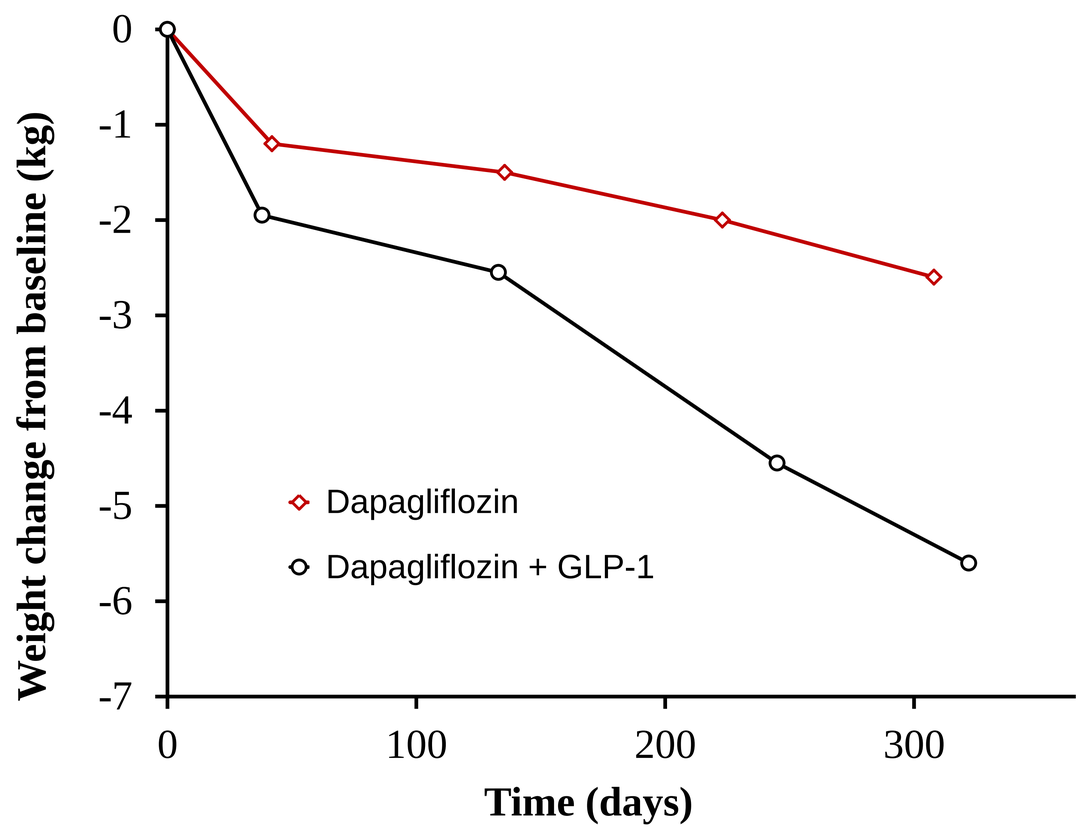

Figure 1. Median weight loss over time for 48 people taking dapagliflozin (red line) and 40 people both dapagliflozin and a GLP-1 agonist (black line).

Non responders

No weight loss was observed in 12 people (25%) who were taking dapagliflozin and no GLP-1 agonist and nine people (23%) who were taking dapagliflozin and a GLP-1 agonist.

Other effects

Improvement in glucose control and blood pressure was comparable in both groups. Adverse effects were comparable in both groups.

Conclusions

These data suggest that the combination of dapagliflozin and GLP-1 agonists results in additional weight loss compared to an SGLT2 inhibitor alone.

References

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