

Gut hormone leads to weight loss in overweight or obese patients

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Giving overweight or obese patients a gut hormone that suppresses appetite leads to clinically beneficial weight loss as well as reduced blood pressure and cholesterol levels, finds a study published in the British Medical Journal today.

Glucagon-like peptide-1 (GLP-1) is a hormone that is secreted from the intestine when we eat. GLP-1 based therapy was recently introduced as a new treatment for patients with [type 2 diabetes](#) because of its ability to regulate [blood sugar levels](#).

But it also suppresses food intake and appetite, making it an interesting approach in the treatment of obesity.

So researchers at the University of Copenhagen set out to determine the effect of glucagon-like peptide-1 receptor (GLP-1R) [agonists](#) on weight loss. They also looked at their effect on blood pressure, cholesterol and liver enzyme levels, and blood sugar (glycaemic) control.

They analysed the results of 25 [randomised controlled trials](#) involving over 6,000 patients. Differences in study design and quality were taken into account to minimise bias.

They found that patients who received clinically relevant doses of GLP-1R agonists for at least 20 weeks achieved a greater weight loss compared with the control groups.

The benefit was seen for patients with and without type 2 diabetes, but may be more pronounced in patients without diabetes.

GLP-1R agonists also had beneficial effects on blood pressure, cholesterol and improved glycaemic control in patients with type 2 diabetes. There was no statistically significant effect on [liver enzymes](#).

Common side effects included nausea, vomiting and diarrhoea, but did not seem to affect the number of patients dropping out of the trials, suggesting that overall [patient satisfaction](#) with the treatment is relatively high.

The authors say that their analysis "provides convincing evidence that GLP-1R agonists, when given to obese patients with or without diabetes, result in clinically relevant beneficial effects on body weight. Additional beneficial effects on blood pressure and total cholesterol might also be achieved."

They believe that the intervention "should be considered in patients with diabetes who are obese or overweight" and call for further studies "to elucidate the effects of GLP-1R agonists in the treatment of obese patients without diabetes."

While these results highlight the weight-reducing benefits of GLP-1 agonists, they should not alter current practice, says Professor Raj Padwal from the University of Alberta in an accompanying editorial. He argues that "modification of diet and lifestyle remains the cornerstone of the treatment of type 2 diabetes."

He also points out that the safety of GLP-1 agonists is still unknown and says "continued and close surveillance of these new agents using all available data sources is warranted."

Provided by British Medical Journal

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