



## RESEARCH NEWS

# Liraglutide improves weight loss in people who are overweight or obese, study shows

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Liraglutide significantly reduces body weight and improves metabolic control in people who are obese or overweight and have dyslipidaemia or hypertension, a randomised trial reported in the *New England Journal of Medicine* has shown.<sup>1</sup>

The study randomised 3731 people who were obese, had a body mass index (BMI) of at least 30, or were overweight (BMI>27), and who had treated or untreated dyslipidaemia or hypertension, to treatment with once daily injections of liraglutide (3.0 mg) or placebo in addition to counselling on lifestyle changes.

Liraglutide is a glucagon-like peptide-1 analogue that mimics the natural gut hormone to stimulate insulin release and reduce food intake by increasing satiety. It is currently licensed to treat type 2 diabetes, but none of the patients in the clinical trial had diabetes.

Results showed significantly greater weight loss after 56 weeks of treatment in patients randomised to liraglutide (mean loss 8.4; standard deviation 7.3 kg) than in those given placebo (2.8; SD 6.5 kg). The average difference was 5.6 kg (95% confidence interval -6.0 to -5.1;  $P<0.001$ ).

Nearly two thirds (63.2%) of patients in the liraglutide group lost at least 5% of their starting body weight, compared with just over one quarter (27.1%) of the placebo group ( $P<0.001$ ). One third (33.1%) of patients treated with liraglutide and 10.6% of those given placebo lost at least 10% of their body weight ( $P<0.001$ ).

Patients on liraglutide also showed significant, although sometimes modest, improvements in glycaemic control, fasting insulin concentrations, cardiometabolic markers, and quality of life measures.

Mild or moderate nausea and diarrhoea were the most frequently reported adverse events with liraglutide. Serious events occurred in 6.2% of patients in the liraglutide group and 5.0% of the placebo group.

“Liraglutide at a once daily dose of 3.0 mg, when used as an adjunct to a reduced calorie diet and increased physical activity,

was associated with increased weight loss in overweight and obese adults who did not have diabetes,” said the researchers, led by Xavier Pi-Sunyer, of Columbia University in New York City, USA.

In an accompanying editorial Elias Siraj and Kevin Jon Williams, of Temple University School of Medicine in Philadelphia, Pennsylvania, wrote, “Given previous disappointments with various weight loss strategies, these are welcome findings.”<sup>2</sup>

“Still, liraglutide is no cure,” they cautioned. “Most obese participants stayed obese, reversal of the metabolic syndrome was not quantified, and liraglutide may be required indefinitely, like statins, but with delivery by injection and at a non-trivial cost.”

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- 1 Pi-Sunyer X, Astrup A, Fujioka K, et al. A randomized, controlled trial of 3.0 mg of liraglutide in weight management. *N Engl J Med* 2015; doi:10.1056/NEJMoa1411892.
- 2 Siraj ES, Williams KJ. Another agent for obesity—will this time be different? *N Engl J Med* 2015; doi:10.1056/NEJMe1506236.

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