

## OBESITY

## Liraglutide induces weight loss

There are few safe and effective drugs available to treat obesity. Arne Astrup and colleagues conducted a clinical trial to assess the effect on bodyweight of liraglutide compared with the approved weight-loss agent orlistat or placebo in obese individuals. They found that liraglutide is well tolerated, induces weight loss and reduces prediabetes.

Liraglutide is a long-acting glucagon-like peptide-1 (GLP-1) analog. “We were the first to report that native GLP-1 increases satiety and reduces energy intake in humans, so it was natural for us to investigate the effect of liraglutide on body weight”, comments Astrup.

“...liraglutide is well tolerated, induces weight loss and reduces prediabetes”

564 individuals with a BMI of 30–40 kg/m<sup>2</sup> and without type 2 diabetes were randomly allocated to receive liraglutide (1.2 mg [*n* = 95], 1.8 mg [*n* = 90], 2.4 mg [*n* = 93] or 3.0 mg [*n* = 93] once a day by subcutaneous injection), placebo (once a day by subcutaneous

injection, *n* = 98) or orlistat (120 mg three times a day orally, *n* = 95). All participants were asked to adhere to a low-fat diet and maintain or increase physical activity. The primary end point was change in bodyweight during the 20 weeks of the study.

61% of people in the liraglutide treatment groups lost >5% weight from baseline, which was significantly greater than that lost by people on placebo (odds ratio [OR] 2.6–7.3). In addition, more individuals (76%) treated with liraglutide 3.0 mg lost >5% weight from baseline than did those treated with orlistat (44%; *P* < 0.0001, OR 3.9). The prevalence of prediabetes in the liraglutide 1.8 mg, 2.4 mg and 3.0 mg groups was 84–96% less than that seen in the placebo or orlistat groups. The most common adverse events with liraglutide were nausea and vomiting; these were mostly transient and of mild to moderate intensity.

Overall, >50% of participants treated with liraglutide achieved the target of 5–10% weight reduction. “We extended the study to 52 weeks to examine the long-term effects of liraglutide and we will report these findings early in 2010. We see liraglutide as a promising



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treatment option for obese people with prediabetes”, comments Astrup.

Ezzie Hutchinson

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