

Diabetes drug, Liraglutide, improves risk factors for heart disease

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Treatment with the diabetes drug liraglutide, in combination with diet and exercise, led to a significant reduction in weight and improved a number of cardiovascular risk factors, including high blood pressure and high cholesterol, according to a multicenter study. The results, from more than 3,700 overweight and obese nondiabetic adults, were presented Saturday at the joint meeting of the International Society of Endocrinology and the Endocrine Society: ICE/ENDO 2014 in Chicago.

"If these improvements continue over time, they may result in a lower risk of heart disease," said the study's principal investigator, Carel Le Roux, MD, PhD, Diabetes Complications Research Centre, University College Dublin.

The drug is undergoing testing at a 3 milligram (mg) dose for long-term weight management as part of the SCALE™ (Satiety and Clinical Adiposity—Liraglutide Evidence in Nondiabetic and Diabetic Subjects) Obesity and Prediabetes trial. Liraglutide currently is marketed as Victoza® in 1.2 mg and 1.8 mg injectable doses for adults with Type 2 diabetes to help control blood glucose (sugar) when used along with diet and exercise. The drug does not have approval for weight loss, according to its manufacturer, Denmark-headquartered Novo Nordisk, which sponsored the study.

The study included 3,731 nondiabetic obese adults and overweight adults who had at least one other risk factor for diabetes and [heart disease](#), such as prediabetes, [high blood pressure](#) or [high cholesterol](#). As part of the study's weight loss efforts, all subjects exercised and ate 500 fewer calories per day than usual. In addition, they were randomly assigned, in a 2-to-1 ratio, to a once-daily injection with either 3 mg of liraglutide (2,487 subjects) or placebo (1,244 subjects) for 56 weeks. Neither the subjects nor the investigators knew who received the active drug.

On average, individuals treated with liraglutide 3 mg lost 5.4 percent more of their body weight, achieving a total of 8 percent, and nearly 1.7 more inches (4.2 centimeters) around their waist than did those who received placebo, the investigators reported.

Compared with the placebo group, liraglutide-treated subjects also experienced better improvements in blood pressure and levels of all fasting lipids (blood fats), including LDL ("bad") cholesterol, HDL ("good") cholesterol, triglycerides and total cholesterol, according to Le Roux. These improvements, he said, resulted in a greater reduction in net use of [blood pressure](#) drugs and lipid-lowering medications in the liraglutide 3 mg group than in the [placebo group](#).

In general, the researchers found liraglutide 3 mg to have a safety profile that was similar to that found in previous clinical trials of the drug in individuals with Type 2 diabetes treated with lower doses.

"Current obesity treatment options are limited," Le Roux said. "There is a need for new treatment options for people who struggle with obesity and obesity-related diseases that can help in reducing their weight."

Provided by The Endocrine Society

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