

News Summary

P3-431: Liraglutide improves cholesterol in patients with type 2 diabetes

In patients with type 2 diabetes, the new diabetes drug liraglutide reduces high cholesterol and other metabolic risk factors for heart disease more than do several other diabetes medications, according to a systematic review of six studies. The results of the new meta-analysis will be presented Friday at The Endocrine Society's 91st Annual Meeting in Washington, D.C.

"Pooled results from studies in nearly 4,000 patients with type 2 diabetes show that liraglutide controls blood sugar very effectively, but that it can also reduce weight, cholesterol and other risk factors for heart disease that are more common in diabetic patients," said the lead author, Richard Pratley, MD, professor of medicine of the University of Vermont College of Medicine, Burlington. "It is more effective at doing this than many of the other currently available diabetes agents."

Pratley, director of the university's Diabetes & Metabolism Translational Medicine Unit, and his colleagues reviewed six previously published phase 3 clinical trials that were part of LEAD (Liraglutide Effect and Action in Diabetes). The studies compared liraglutide, an experimental once-daily, injectable drug treatment of type 2 diabetes, with these currently available diabetes medications: glimepiride, rosiglitazone (marketed as Avandia and other brand names), injectable exenatide (Byetta) and injectable insulin glargine (Lantus). The researchers wanted to find out if 26 weeks of treatment with liraglutide can reduce the frequency of the metabolic syndrome, a cluster of metabolic risk factors that increase the chances of developing diabetes, heart disease and stroke.

Patients in the studies were defined as having the metabolic syndrome according to the National Cholesterol Education Program's Adult Treatment Panel III (ATP III) criteria. Besides high blood glucose, or sugar, levels, patients needed at least two more of these risk factors to make the diagnosis: abdominal obesity as shown by a large waist circumference, low high-density-lipoprotein (HDL or "good") cholesterol, high triglycerides (fats in the blood) and high blood pressure.

Compared with the four other diabetes medications studied, liraglutide more greatly reduced the proportion of patients with the metabolic syndrome, the authors reported. Liraglutide also reduced total cholesterol and "bad" cholesterol (low-density-lipoprotein or LDL cholesterol) much more than rosiglitazone, glimepiride and insulin glargine, a long-acting insulin.

"These findings support the potential for liraglutide to reduce cardiovascular risk factors as well as high blood sugar and overweight in patients with type 2 diabetes," Pratley said.

Liraglutide works by stimulating secretion of the hormone insulin, according to the drug maker, Novo Nordisk. Side effects of liraglutide are primarily nausea, vomiting and diarrhea, which tend to be temporary, Novo Nordisk has reported.

Novo Nordisk A/S Denmark funded this study.

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