Head-to-head trial of two diabetes drugs yields mixed results

November 6 2012

The results of this study will be helpful to both doctors and patients in shared decision-making about which of these two drugs is better suited for a particular patient, said John B. Buse, M.D., Ph.D., first author of the study. Dr. Buse is division chief of endocrinology and metabolism in the University of North Carolina School of Medicine and director of the UNC Diabetes Care Center. Credit: UNC Medical Center News Office

A direct, head-to-head comparison of two of the newer treatments available for type 2 diabetes yielded mixed results.

The 26-week, multicenter DURATION-6 clinical trial found that daily injections of liraglutide (Victoza) were slightly more effective than weekly injections of exenatide (Bydureon) in lowering blood sugar and promoting weight loss in patients with type 2 diabetes. However, the patients taking exenatide suffered fewer negative side effects such as nausea, diarrhea and vomiting.

"Both of these agents are very exciting diabetes products and really good blood sugar-lowering drugs," said John B. Buse, MD, PhD, first author of the study, division chief of endocrinology and metabolism in the University of North Carolina School of Medicine, director of the UNC Diabetes Care Center and a a PI Extender of the UNC NIH Clinical and Translational Science Awards (CTSA).

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"The results of this study will be helpful to both doctors and patients in shared decision-making about which of these two drugs is better suited for a particular patient," Buse said. "For example, for some patients the additional weight loss advantage provided by liraglutide might tip the scales in favor of that drug. For other patients, though, the greater convenience of once-weekly injections and the more favorable side effects profile of exenatide would be extremely appealing."

Results of the study were published online ahead of print on Nov. 7, 2012 by The Lancet.

In the study, 912 patients from 105 sites in 19 countries were randomized to receive injections of once-daily liraglutide or once-weekly exenatide for 26 weeks. The primary endpoint of the study was the overall reduction in HbA1c (blood sugar) levels from baseline to 26 weeks.

Both drugs produced a clinically significant decrease in blood sugar levels. By the end of the study, 60 percent of the patients taking liraglutide had achieved HbA1c levels of less than 7 percent, vs. 53 percent of patients on exenatide. Both drugs also produced progressive decreases in bodyweight, but patients taking liraglutide lost about 2

pounds more weight than those on exenatide.

Patients in both groups reported having side effects on occasions over the six month trial. The most common were nausea (21 percent in the liraglutide group vs. 9 percent in the exenatide group), diarrhea (13 percent vs. 6 percent) and vomiting (11 percent vs. 4 percent). The occurrence of side effects lessened in both groups over time. Five percent of patients on liraglutide and 3 percent on exenatide dropped out of the study because of side effects.

Provided by University of North Carolina Health Care