

News Summary

OR14-1: Exenatide promotes weight loss when added to diet and exercise

In combination with diet and exercise, the diabetes drug exenatide helped nondiabetic, obese individuals lose over three times more weight than those receiving a placebo, or dummy treatment, for 6 months. The results of the new study will be presented Thursday at The Endocrine Society's 91st Annual Meeting in Washington, D.C.

Previous studies show that exenatide, an injectable medication marketed as Byetta (Amylin Pharmaceuticals and Eli Lilly and Company), not only lowers blood sugar but also can result in weight loss in some people with diabetes. This study, financed by both pharmaceutical companies, is "the first to assess the effect of exenatide on body weight in nondiabetic obese individuals," said the principal investigator, Michael Trautmann, MD, a researcher with Eli Lilly in Indianapolis.

"Drug therapy is considered important adjunctive treatment to diet and exercise in the successful management of obesity," Trautmann said. "To date, however, there are few effective drugs that help obese people lose weight."

Trautmann and colleagues studied 152 patients in the United States—27 men and 125 women—who were obese (body mass index, or BMI, greater than 30). The study subjects had an average weight of about 241 pounds (108.6 kilograms) and an average BMI of 39.6. Of the 152 subjects, 38 (25%) had impaired glucose tolerance. None of the subjects took another weight loss medication during the study or in the several months preceding the study.

Subjects were randomly assigned to receive an injection of either exenatide, 10 micrograms twice a day (73 subjects), or placebo (79 subjects), along with a structured lifestyle modification program involving diet and exercise, for 24 weeks. Neither the subjects nor the staff giving the treatments knew which individuals received the study medication. There was no statistically significant difference in beginning weight between the exenatide-treated subjects and the control subjects, who got the placebo injection.

Individuals who received exenatide lost more weight in 24 weeks than controls did, the authors reported. Those who received the medication lost an average of more than 11 pounds (5.06 kg), whereas the controls lost just 3.5 pounds (1.61 kg). This difference was statistically significant and noted as early as week 8. Only exenatide-treated subjects lost more than 10 percent of their body weight (seven of 73 subjects, or 9.6%).

The most common side effects of exenatide were mild or moderate nausea and diarrhea, but weight loss was independent of nausea, the authors reported. Although exenatide lowers blood glucose, or sugar, levels in people with diabetes, it is known to only act in the presence of high blood glucose so that no subjects reported low blood sugar.

Possible reasons why exenatide may cause weight loss include decreased food intake and increased feelings of fullness, he explained.

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