Linear association for weight loss, HbA1c reduction in T2DM

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(HealthDay)—For overweight and obese adults with type 2 diabetes

(T2D), weight loss is associated with a reduction in hemoglobin A1c (HbA1c) in a dose-dependent manner, according to a review published online April 18 in *Diabetes, Obesity and Metabolism*.

Anders Gummesson, M.D., from Sahlgrenska University Hospital in Gothenburg, Sweden, and colleagues conducted a systematic review of the literature to identify prospective trials of energy-reduced diets, obesity drugs, or bariatric surgery in adult overweight and obese patients with type 2 diabetes. The authors developed a linear model to describe the effect of weight reduction on HbA1c based on data from three to 24 months of follow-up. Data were included for 58 articles with 124 treatment groups and 17,204 adults.

The researchers identified a linear relationship between weight loss and HbA1c reduction; for each 1 kg of reduced body weight there was an estimated mean reduction of 0.1 percent in HbA1c for the overall population. Baseline HbA1c significantly affected the correlation between weight loss and HbA1c: for the same degree of weight loss, high HbA1c at baseline correlated with a greater reduction in HbA1c. There were also weight-loss-dependent reductions in diabetes medication.

"This summary of data from previous trials regarding the effect of weight reduction on HbA1c may be used to support the design and interpretation of future studies that aim to demonstrate the efficacy of weight loss interventions for T2D treatment," the authors write.

Several authors disclosed financial ties to AstraZeneca.

More information: Abstract
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