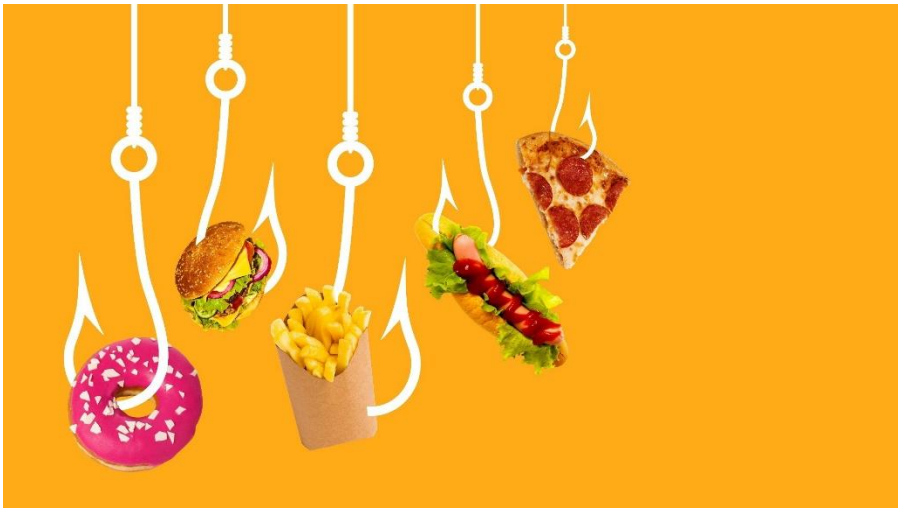
Not just how much you Eat GLP-1 Weight-Loss Drugs may Change what you Crave

A recent pilot study suggests that semaglutide or tirzepatide treatment may help reduce body weight in adults with obesity. Participants lost an average of 7.2 kg over three months and reported changes in eating behavior, including food preferences, meal frequency, food cravings, satiety, and difficulty resisting hunger between meals, in both groups. The findings provide preliminary evidence of changes in eating behavior during incretin-based treatment, without establishing that the medications caused them.

Scientists from San Raffaele Open University, IRCCS San Raffaele Roma, and Campus Bio-Medico University of Rome in Italy conducted the research, in collaboration with Queen Mary University of London in the United Kingdom.

Obesity has been linked to considerable morbidity and mortality worldwide. Alterations in appetite regulation, eating behavior, food reward processing, and energy homeostasis can contribute to persistent weight gain. Strategies that can modify physiological and behavioral factors contributing to excess calorie intake are needed to support achieving and maintaining a healthy weight.

Recent studies have demonstrated that medications targeting incretin pathways can reduce body weight. Semaglutide acts as a glucagon-like peptide-1 (GLP-1) receptor agonist, whereas tirzepatide activates both glucose-dependent insulinotropic polypeptide (GIP) and GLP-1 receptors. Primarily developed to improve blood glucose levels in patients with type 2 diabetes, these medications can also support weight management by regulating appetite, reducing food intake, and increasing feelings of fullness through incretin signaling and metabolic regulation.



Study

In this prospective observational study, the researchers explored changes in eating behavior and food preferences after semaglutide or tirzepatide treatment among 38 adults with obesity or overweight and weight-related comorbidities who did not have diabetes, with a body mass index (BMI) of at least 30 kg/m^2, or at least 27 kg/m^2 with weight-related comorbidities. None were pregnant or lactating, had active severe gastrointestinal disorders precluding treatment, severe psychiatric or cognitive impairment hindering questionnaire completion, or had a history of bariatric surgery. Previous exposure to incretin-based therapies was also an exclusion criterion.

Of the participants, 17 received tirzepatide and 21 received semaglutide. Treatment was prescribed as part of routine care, without randomization or a control group. Treatment began at weekly doses of 2.5 mg and 0.25 mg, respectively, which were gradually increased to support weight loss. At baseline and three months later, anthropometric, clinical, and hemodynamic parameters were measured using standardized procedures, while eating behaviors were evaluated using a study-specific participant-completed questionnaire that had not been formally validated.

The researchers assessed food preferences, food cravings, perceived satiety, daily meal frequency, eating speed, meal skipping, hunger control, and consumption of specific food groups. The questionnaire also covered nocturnal and boredom-related eating behaviors and uncontrolled eating.

Participants also reported whether they regularly consumed plant-derived drinks, whole grains, legumes, fresh fruits, nuts, raw and cooked vegetables, dairy products, fresh cheeses, dark chocolate, soy foods, processed meats, red meat, white meat, fish, and eggs. Follow-up assessments measured changes in food enjoyment, food intake at each meal, taste alterations, and nausea.

Craving scores, gastrointestinal symptoms, and behavioral items were assessed using Likert scales. In addition to weight changes, the researchers measured systolic blood pressure (SBP) and diastolic blood pressure (DBP). Pearson correlation coefficients were used to explore associations between behavioral changes, gastrointestinal symptoms, and weight loss.

Findings

The mean age and BMI of the participants were 56 years and 32.7 kg/m^2, respectively. Most of them (74%) were female. At baseline, the mean BMI among individuals receiving tirzepatide was 35.4 kg/m^2, significantly higher than the 30.5 kg/m^2 recorded in the semaglutide group. Among semaglutide recipients with available dosing information (n = 16), 13 had attained a weekly dose of 1.0 mg. The most commonly documented tirzepatide doses were 5.0 mg and 7.5 mg weekly, with three participants at each dose. Follow-up dosing records were available for only 23 participants.

The team observed significant reductions in mean SBP (6.1 mm Hg), DBP (2.0 mm Hg), body weight (7.2 kg), and BMI (2.6 kg/m^2). Following treatment, participants reported greater meal-induced satiety, fewer cravings for sweet and savory foods, and less difficulty resisting hunger between meals. Participants also reported consuming fewer meals per day (4.3 versus 3.6).

At follow-up, 26% of participants reported a shift toward savory foods, 8% toward sweet foods, and 66% reported no change, while 84% reported substantial reductions in meal portions. Participants reported changes in their regular consumption of particular food groups, but the researchers could not determine whether overall dietary quality improved. Daily fluid intake did not change significantly.

Changes in body weight, BMI, blood pressure, and eating behavior did not differ significantly between the semaglutide and tirzepatide groups. The small, nonrandomized study could not establish equivalent efficacy between the medications.

The team noted the largest decreases in the proportions of participants regularly consuming processed meat (13.2 percentage points) and fresh cheese (7.9 percentage points). The proportions reporting regular consumption of raw vegetables, legumes, nuts and dried fruits, white meat, and fish increased by 5.3 to 7.9 percentage points.

Greater self-reported improvement in the ability to resist hunger between meals was associated with larger reductions in body weight, but the relationship does not establish causation. More than 55% of participants reported moderate-to-high nausea or taste-alteration scores, which were numerically higher in the semaglutide group, but the between-group difference was not statistically significant. Symptom severity was not significantly associated with weight loss.

Conclusion

The findings indicate that semaglutide or tirzepatide treatment was associated with reductions in body weight and changes in self-reported eating behaviors over three months. Participants reported fewer food cravings, changes in food preferences, and improved self-perceived control over eating. The authors also stressed the need for nutritional monitoring, since smaller portions may compromise protein, fiber, fluid, and micronutrient intake. While these preliminary real-world findings are encouraging, larger randomized trials with longer follow-ups, comparator groups, validated questionnaires, lifestyle assessments, and objective measurements of calorie intake are needed to confirm the findings.

Source:

https://www.news-medical.net/news/20261108/GLP-1-weight-loss-drugs-may-change-what-you-crave-not-just-how-much-you-eat.aspx