Dapagliflozin improves glucose outcomes in type 1 diabetes

April 26 2019

(HealthDay)—In patients with type 1 diabetes, treatment with

dapagliflozin for 24 weeks improves time in range, mean glucose, and glycemic variability, according to a study published online April 9 in *Diabetes Care*.

Chantal Mathieu, M.D., PhD., from the University of Leuven in Belgium, and colleagues assessed continuous glucose monitoring in patients with inadequately controlled type 1 diabetes (hemoglobin A1c [HbA1c] ≥7.7 to ≤11 percent) who received dapagliflozin as an adjunct to adjustable insulin as part of two phase 3 clinical trials. Pooled data included 1,591 patients receiving dapagliflozin 5 mg (530 patients), dapagliflozin 10 mg (529), or placebo (532).

The researchers found that patients receiving dapagliflozin (either dose) spent more time with HbA1c in the range of >3.9 to ≤10 mmol/L for 24 hours than those receiving placebo. From baseline to week 24, the adjusted mean change was 6.48 percent with dapagliflozin 5 mg, 8.08 percent with dapagliflozin 10 mg, and −2.59 percent with placebo. The mean amplitude of glucose excursion over 24 hours, mean 24-hour glucose values, and postprandial glucose values at week 24 also improved in patients receiving dapagliflozin versus placebo. However, there were no substantial differences at week 24 between dapagliflozin 5 or 10 mg and placebo with regard to the percentage of glucose values ≤3.9 mmol/L or ≤3 mmol/L for 24 hours or nocturnal glucose values ≤3.9 mmol/L.

"The reduced variability reported here suggests that treatment with dapagliflozin along with adjustable insulin may improve treatment adherence and reduce the risk of complications in people with type 1 diabetes," the authors write.

Several authors disclosed financial ties to medical device and pharmaceutical companies, including AstraZeneca, which manufactures dapagliflozin and supported the study.

More information: Abstract/Full Text (subscription or payment may be required)