DPP-4 inhibitor has dissociated effects on β-cell function

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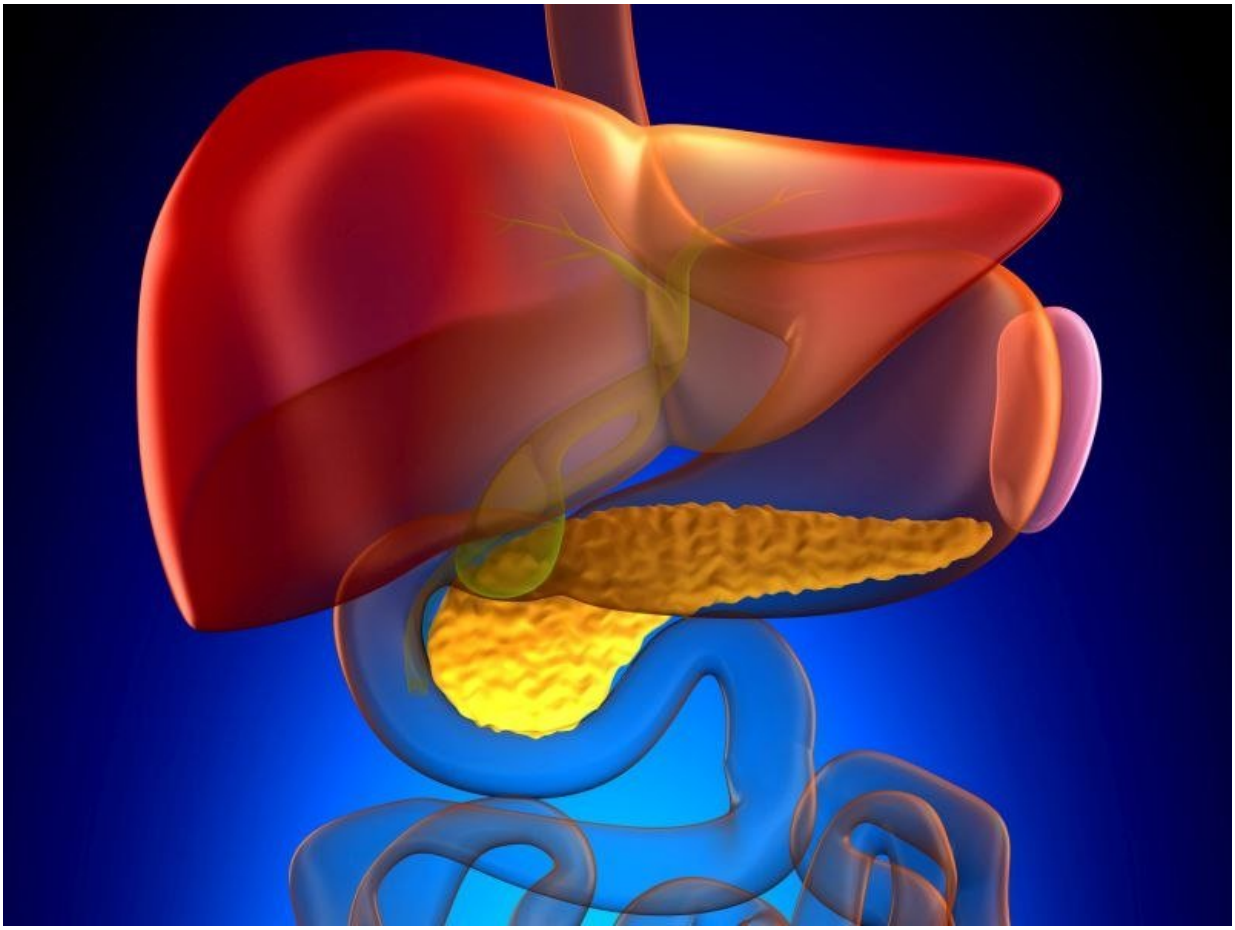

(HealthDay)—For healthy adults and individuals with well-controlled

type 2 diabetes (T2D), a single dose of the dipeptidyl peptidase-4 inhibitor sitagliptin is associated with increased standardized insulin secretion, with no impact on β-cell glucose sensitivity, according to a study published online Dec. 11 in *Diabetes, Obesity and Metabolism*.

Wathik Al Salim, M.D., from Lund University in Sweden, and colleagues examined the effects of a single dose of sitagliptin on glucose-standardized insulin secretion and β-cell sensitivity after meal ingestion. Twelve healthy and 12 drug-naive subjects with well-controlled T2D received sitagliptin or placebo before a meal.

The researchers found that, compared with placebo, sitagliptin was correlated with increased standardized insulin secretion in healthy and T2D subjects without increasing β-cell glucose sensitivity. Increases in active glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1) were also seen with sitagliptin, as were decreases in total GIP but not total GLP-1 levels.

"We conclude that a single dose of DPP-4 inhibition induces dissociated effects on different aspects of β-cell function and incretin hormones after meal ingestion in healthy subjects and in well-controlled T2D," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

More information: Abstract
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