

Vildagliptin, sitagliptin have similar effects on incretin

June 20 2016



(HealthDay)—The dipeptidyl peptidase-4 (DPP-4) inhibitors vildagliptin

and sitagliptin have similar effects on incretin hormone secretion, according to a study published online June 14 in *Diabetes, Obesity and Metabolism*.

Oleg Baranov, from the Diabeteszentrum Bad Lauterberg in Germany, and colleagues compared the clinical effects of vildagliptin and sitagliptin in 24 patients with type 2 diabetes (12 diet/exercise, 12 on metformin). Participants were treated in randomized order for seven to nine days with vildagliptin, sitagliptin, or placebo.

The researchers found that with vildagliptin and sitagliptin, intact glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide concentrations were doubled. In most patients, meal-related total GLP-1 responses were reduced by vildagliptin and sitagliptin treatment ($P = 0.0005$ and 0.019 , respectively), with considerable inter-individual variation. In those with greater increases in intact GLP-1 relative to total GLP-1 and who had greater reductions in fasting plasma glucose after DPP-4 inhibition, L-cell [feedback](#) was more pronounced. Overall, K-cell feedback inhibition was not significant. No between-group differences were seen in any clinical parameters.

"Vildagliptin and sitagliptin affected incretin hormones, [glucose concentrations](#), insulin, and glucagon secretion in a similar manner," the authors write. "Inter-individual variations in L-cell feedback inhibition may indicate heterogeneity in the clinical response to DPP-4 [inhibition](#)."

Several authors disclosed financial ties to pharmaceutical companies, including Novartis Pharma, which manufactures vildagliptin and funded the study.

More information: [Abstract](#)
[Full Text \(subscription or payment may be required\)](#)

Copyright © 2016 [HealthDay](#). All rights reserved.

Citation: Vildagliptin, sitagliptin have similar effects on incretin (2016, June 20) retrieved 20 September 2024 from

<https://medicalxpress.com/news/2016-06-vildagliptin-sitagliptin-similar-effects-incretin.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.