Dextromethorphan plus sitagliptin promising in type 2 diabetes

21 September 2015

Photo: U.S. National Kidney and Urologic Diseases Information Clearinghouse

(HealthDay)—Dextromethorphan combined with sitagliptin shows potential for treatment of type 2 diabetes mellitus, according to a study published online Sept. 12 in *Diabetes, Obesity and Metabolism*.

Jan Marquard, M.D., from Heinrich Heine University in Germany, and colleagues examined the blood-glucose-lowering effects of 30, 60, and 90 mg dextromethorphan as well as 100 mg sitagliptin alone versus combinations of dextromethorphan and sitagliptin during an oral glucose tolerance test (OGTT). Participants consisted of 20 males with type 2 diabetes mellitus .

The researchers found that the strongest effect in the OGTT was seen with the combination of 60 mg dextromethorphan plus 100 mg sitagliptin. Maximum blood glucose concentrations were lowered with this combination. In addition the baseline-adjusted area under the curve of serum insulin concentrations was increased in the first 30 minutes of the OGTT to a significantly larger extent than with 100 mg sitagliptin alone (P

"Long-term clinical trials are now warranted to investigate the potential of the combination of 30 or 60 mg dextromethorphan and dipeptidyl peptidase-4 inhibitors in the treatment of individuals with type 2 diabetes mellitus, in particular since preclinical studies revealed beta cell protective properties of dextromethorphan," the authors write.

Three study authors are pursuing a patent titled "Morphinan-derivatives for treating diabetes and related disorders."

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