

## Publication

Absence of short-term effects of glucagon-like peptide-1 and of hyperglycemia on plasma leptin levels in man

## JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 3188601

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Year 1997

**Title** Absence of short-term effects of glucagon-like peptide-1 and of hyperglycemia on plasma leptin levels in man

Journal Metabolism

Volume 46

Number 7

## Pages / Article-Number 723-5

**Keywords** Adult, Glucagon-Like Peptide 1, Glucagon/\*pharmacology, Glucose Clamp Technique, Humans, Hyperglycemia/\*blood, Leptin, Male, Osmolar Concentration, Peptide Fragments/\*pharmacology, Protein Precursors/\*pharmacology, Proteins/\*analysis

In rodents, leptin and the incretin glucagon-like peptide-1 (7-36) amide (GLP-1) affect feeding at least in part via interaction with hypothalamic neuropeptide Y (NPY), suggesting that cross talk may exist between GLP-1 and the ob gene product. Besides insulin, acute hyperglycemia has recently been shown to induce ob gene expression. To address the question of whether leptin plasma levels in humans are affected by GLP-1 infusion and/or hyperglycemia, eight healthy volunteers were studied during euglycemia and hyperglycemic clamping with or without GLP-1 administration while insulin levels were kept constant by somatostatin infusion. Under all conditions, leptin plasma levels remained unchanged, demonstrating that in humans leptin plasma concentrations are affected neither by short-term peripheral GLP-1 infusion nor by hyperglycemia, which suggests that postprandial GLP-1 release and hyperglycemia do not modulate secretion of the ob gene product.

Publisher Grune and Stratton ISSN/ISBN 0026-0495 edoc-URL http://edoc.unibas.ch/dok/A6419974 Full Text on edoc No; Digital Object Identifier DOI 10.1016/S0026-0495(97)90112-8 PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/9225821 ISI-Number WOS:A1997XK08400001 Document type (ISI) Journal Article