PubMed

Format: Abstract

Full text links

SpringerLink FULL-TEXT ARTICLE

Adv Ther. 2008 Sep;25(9):894-913. doi: 10.1007/s12325-008-0093-z.

LG839: anti-obesity effects and polymorphic gene correlates of reward deficiency syndrome.

Blum K[1], Chen AL, Chen TJ, Rhoades P, Prihoda TJ, Downs BW, Waite RL, Williams L, Braverman ER, Braverman D, Arcuri V, Kerner M, Blum SH, Palomo T.

Author information

Abstract

INTRODUCTION: This study systematically assessed the weight management effects of a novel experimental DNA-customized nutraceutical, LG839 (LifeGen, Inc., La Jolla, CA, USA).

METHODS: A total of 1058 subjects who participated in the overall D.I.E.T. study were genotyped and administered an LG839 variant based on polymorphic outcomes. A subset of 27 self-identified obese subjects of Dutch descent, having the same DNA pattern of four out of the five candidate genes tested (chi-square analysis) as the entire data set, was subsequently evaluated. Simple t tests comparing a number of weight management parameters before and after 80 days of treatment with LG839 were performed.

RESULTS: Significant results were observed for weight loss, sugar craving reduction, appetite suppression, snack reduction, reduction of late night eating (all $P<0.01$), increased perception of overeating, enhanced quality of sleep, increased happiness (all $P<0.05$), and increased energy ($P<0.001$). Polymorphic correlates were obtained for a number of genes (LEP, PPAR-gamma2, MTHFR, 5-HT2A, and DRD2 genes) with positive clinical parameters tested in this study. Of all the outcomes and gene polymorphisms, only the DRD2 gene polymorphism (A1 allele) had a significant Pearson correlation with days on treatment ($r=0.42$, $P=0.045$).

CONCLUSION: If these results are confirmed in additional rigorous, controlled studies, we carefully suggest that DNA-directed targeting of certain regulator genes, along with customized nutraceutical intervention, provides a unique framework and strategic modality to combat obesity.

PMID: 18781289 DOI: 10.1007/s12325-008-0093-z

[Indexed for MEDLINE]

Publication type, MeSH terms, Substances

LinkOut - more resources