J Obes Weight Loss Ther 2017, 7:7 (Suppl)
DOI: 10.4172/2165-7904-C1-55

Deficiency in vitamin D and calcium and the associated comorbidities in overweight children

Ellie Wright
Southwest College of Naturopathic Medicine, USA

Obesity is increasing in epidemic proportion around the world with most concern for health issues among children. Vitamin D (25OHD) deficiency is reported worldwide. Low 25OHD levels are associated with dyslipidemia and insulin resistance with increased risk of cardiovascular complication in adulthood. Studies suggest that a low vitamin D which is linked to dysregulation of white adipose tissue and that calcium influences adipocyte metabolism. Dietary calcium has been also shown to increase fecal fat excretion. Deficiency of vitamin D in children is linked with further comorbidities in life such as hypertension, myocardial infarction and stroke, as well as other cardiovascular-related diseases, such as diabetes associated with impairment of cooperative signaling from the 1,25-$(OH)_{(2)}$D(3)-activated vitamin D receptor (VDR). Vitamin D and calcium insufficiency causes cellular dysfunction in many organs and could increase the risk of diseases, particularly of osteoporosis, colorectal and breast cancer, inflammatory bowel disease, insulin-dependent diabetes mellitus type-1, metabolic syndrome, diabetes mellitus type-2, hypertensive and cardiovascular disease. This research focuses on the mechanisms by which calcium and vitamin D could help regulate body weight and might be able to prevent comorbidities in overweight children.

elliewright@gmail.com