INVESTIGATING THE CLINICAL, GENETIC AND ENVIRONMENTAL DETERMINANTS OF VITAMIN D STATUS AND ENERGY METABOLISM IN THE UAE.

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Animal studies support a role for vitamin d in energy regulation, however, whether weight loss through lifestyle interventionis influenced by vitamin d status under real-world conditions remains unknown. The primary purpose of this study was to investigate the effect of base line vitamin d status and vitamin d supplementation on percentage body weight loss and abdominalcircumference in over weight and obese adults participating in a 3-month weight-lossprogram. This studyis a retrospective analysis of a clinical data bank collected from severalmedical centres across dubai, uae. Clinical parameters including blood pressure, fastinglipid profile (total cholesterol, ldl-cholesterol, hdl-cholesterol and tg), serum 25 hydroxyvitamin d (25ohd) as well as anthropometry (weight, height, and waistcircumference) were collected from both baseline and 3-month follow up consultations. Some patients with low baseline 25ohd concentrations received vitamin d supplements, according to the preference of their physician. Subjects who had sufficient baseline 25(oh)d levels showed a significantly greater body weight loss and waist circumference reduction than those who had a deficient baseline 25(oh)d and were not supplemented. Importantly, deficientpatients who were supplemented with daily vitamin d (2000 or 4000iu) showed a significantly greater decrease in body weight(-5.3 vs - 2.2kg; $p<0.01$) and waist circumference (-4.2 vs -1.2cm $p<0.01$). We also observed a greater decrease in total cholesterol and ldl in those subjects who were deficientat baseline and supplemented than in those who were notsupplemented. Blood pressure and triglyceride levels were not affected by the level of supplementation in subjects that were deficientat baseline.because obesity and vitamin d insufficiency are increasingly prevalent world wide, a better understanding of the nature of the relation between them remains an important area of investigation. In a real clinical weight-losssetting, adequate vitamin d status at the end of the treatment period was associated with significantly greater weightloss and reduction of waistcircumference.

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