Abstract

Vitamin D and Dysfunctional Adipose Tissue in Obesity.


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OBJECTIVE: Vitamin D deficiency and dysfunctional adipose tissue are involved in the development of cardiometabolic disturbances (e.g., hypertension, insulin resistance, type 2 diabetes mellitus, obesity, and dyslipidemia).

METHODS: We evaluated the relation between vitamin D and adipocytokines derived from adipose tissue. We studied 50 obese individuals who were classified into different subgroups according to medians of observed anthropometric parameters (body mass index, body fat percentage, waist circumference, and trunk fat mass).

RESULTS: There was a negative correlation between vitamin D level and leptin and resistin (r = -0.61, P < .01), while a positive association with adiponectin concentrations was found (r = .7, P < .001). Trend estimation showed that increase in vitamin D level is accompanied by intensive increase in adiponectin concentrations (growth coefficient: 12.13).

CONCLUSION: In conclusion, a positive trend was established between vitamin D and the protective adipocytokine adiponectin. The clinical relevance of this relationship needs to be investigated in larger studies.

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