Vitamin D status in autism spectrum disorders and the efficacy of vitamin D supplementation in autistic children


Abstract:

Objectives: Autism spectrum disorder (ASD) is a developmental disorder characterized by pervasive deficits in social interaction, impairment in verbal and nonverbal communication, and stereotyped patterns of interests and activities. Vitamin-D deficiency was previously reported in autistic children. However, the data on the relationship between vitamin D deficiency and the severity of autism are limited. Methods: We performed a case-controlled cross-sectional analysis conducted on 122 ASD children, to assess their vitamin D status compared to controls and the relationship between vitamin D deficiency and the severity of autism. We also conducted an open trial of vitamin D supplementation in ASD children. Results: Fifty-seven percent of the patients in the present study had vitamin D deficiency, and 30% had vitamin D insufficiency. The mean 25-OHD levels in patients with severe autism were significantly lower than those in patients with mild/moderate autism. Serum 25-OHD levels had significant negative correlations with Childhood Autism Rating Scale (CARS) scores. Of the ASD group, 106 patients with low-serum 25-OHD levels (Keywords: Autism; Children; Neurodevelopmental; Vitamin D

Published In:

Nutritional Neuroscience