

Vitamin D supplementation shows promise for Hashimoto's thyroiditis

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March 23 2016. The September-December 2015 issue of the *Hellenic Journal of Nuclear Medicine* published the finding of Greek researchers of an association between low serum vitamin D levels and an increase in a marker of the autoimmune disease known as Hashimoto's thyroiditis (HT).

In Hashimoto's thyroiditis, the **thyroid** gland is attacked by the immune system, which can lead to hypothyroidism. The condition mainly affects middle-aged and older women and is the most common cause of hypothyroidism in the U.S.

The study included 218 Hashimoto's thyroiditis patients with normal thyroid stimulating hormone (TSH) levels. Subjects in the study resided in Crete, an island that has abundant sunlight exposure needed for vitamin D formation. Blood tests measured serum 25-hydroxyvitamin D [25(OHD)] and other values. Hashimoto's thyroiditis diagnosis was determined by elevated levels of the antibodies antithyroid peroxidase and/or antithyroglobulin, and ultrasound results.

Deficient serum vitamin D levels of less than 30 nanograms per milliliter were detected in 85.3% of the participants. Among deficient subjects, antithyroid peroxidase levels were significantly higher than levels measured in the sufficient group; however, supplementation with 1,200 to 4,000 IU vitamin D3 daily for four months resulted in a 20.3% decrease by the end of the study.

"We have shown that the majority (85.3%) of our Greek patients with HT residing and working on the island of Crete had low serum 25(OH)D levels inversely correlated with serum antithyroid peroxidase thyroid antibodies,' authors Elias E. Mazokopakis, MD, PhD, and colleagues conclude. "Also, our study revealed that 4 months cholecalciferol supplementation in these patients caused a significant decrease (20.3%) in serum antithyroid peroxidase levels. These findings suggest that vitamin D deficiency may be related to pathogenesis of HT and that its supplementation could contribute to patients' with HT treatment."