

[Vitamin D in the etiopathogenesis of autoimmune thyroiditis].

[Article in Polish]

Łacka K¹, Maciejewski A.

Author information

1 Katedra Endokrynologii, Przemysłowa 13, 60-206 Poznań, Uniwersytet Medyczny im. K. Marcinkowskiego w Poznaniu. kktlacka@gmail.com

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Abstract

Autoimmune thyroiditis is a polygenic disease which is the result of a combination of genetic factors and the environmental conditions, both of which are not yet completely understood. The relationship between the intake of vitamin D and the risk of Hashimoto's disease is the subject of this article. Vitamin D is known, first of all, for the role it plays in the regulation of calcium-phosphate homeostasis. Nowadays, it is known that vitamin D has a lot of different functions in the human organism, including acting as immunomodulatory factor. Receptors for 1,25(OH)₂D₃ have been found (among others) in monocytes, dendritic cells, T and B lymphocytes. Its influence on the immune system consists in regulating the proliferation and differentiation of immune cells, which leads to decreased lymphocytes activity, especially those of Th1 type, and the decrease in proinflammatory cytokine expression. The results of the studies conducted so far seem to confirm the presence of a significantly lower concentration of 25(OH)D₃ in the patients suffering from Hashimoto's disease in relation to the control group. Therefore it is postulated that there is a relationship between vitamin D deficiency and the risk of autoimmune thyroiditis development. The polymorphisms within the genes connected to vitamin D--VDR (Vitamin D Receptor), CYP27B1 (1alpha-hydroxylase gene) and DBP (Vitamin D-Binding Protein) may also predispose people to the development of autoimmune thyroiditis.