

PRIORITIES FOR THE PRIMARY PREVENTION OF AUTOIMMUNE THYROID DISEASES

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Thyroid dysfunction is one of the most common endocrine disorders. Autoimmune thyroid diseases, including Grave's disease and Hashimoto's thyroiditis are prevalent autoimmune diseases, affecting up to 10 % of the general population. Autoimmune thyroid diseases arise due to complex interactions between environmental and genetic factors. Significant progress has been made in our understanding of the genetic and exogenous triggers contributing to this disease. It has been postulated that 79% of the susceptibility to develop autoimmune thyroid disease is attributed to genetic factors, while environmental factors contribute to 21%. Malnutrition or the presence of numerous nutritional deficiencies in a patient's body can be the cause of thyroid disorders. The nutrient deficiencies usually observed in patients suffering from disease are micronutrient deficiencies, protein deficiencies, vitamin deficiencies and mineral deficiencies. The population's iodine intake is one of the most relevant environmental factors associated to thyroid dysfunction and autoimmunity. The relationship between the iodine intake and the risk of developing thyroid disease is very close and dysfunction occurs in association with extreme nutritional iodine status; the risk is therefore present with both high and low intakes. Antithyroid drugs are combined with selenium the patients with Graves' disease and autoimmune thyroiditis achieved euthyroidism faster than those treated with antithyroid drugs alone. Selenium is needed for the biosynthesis of selenoproteins that are implicated in antioxidant defense and redox control of transcription. It also influence on the size of the thyroid gland. It deficiency can also exacerbate the effects of iodine deficiency and the same is true for vitamin A or iron deficiency. Zinc is essential for many biochemical processes and also for cell proliferation. Thyroid hormones influence zinc metabolism by affecting zinc absorption and excretion. The low levels of vitamin D may contribute to the development of autoimmune disease. Knowledge of the precise mechanism of interaction between environmental factors and genes in inducing thyroid autoimmune disease could result in the development of new strategies for a prevention. In recent years, the authors of epidemiological studies have documented that autoimmune diseases are a major problem of modern society and are classified as diseases of civilization. There is increasing evidence that nutritive and environmental factors are the main determinants in the present-day distribution of this disease. Proper diet helps to reduce the symptoms of the disease, maintains a healthy weight and prevents the occurrence of malnutrition.

Thus, it is a multifactorial disease, which prevention should affect the nutritional deficiency, use natural sources of trace elements, lifestyle and state of the organism as a whole.