A COHORT STUDY ON DIET AND ROLE OF DIFFERENT FOOD GROUPS IN HASHIMOTO THYROIDITIS

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Abstract

The influence of diet and different foods in the development of chronic autoimmune lymphocytic thyroiditis (Hashimoto disease) is not clear. Low levels of selenium and vitamin D and high levels of iodine intake may trigger an autoimmune reaction against thyroid. Other studies analyzed the prevalence of self-hypothyroidism in relation to dietary habits, and found a protective role of anti-inflammatory (rich in vegetables, fruits, multigrain, low fat and sugar intake), but data are inconclusive. The aim of our study was to analyze the role of different food groups in Hashimoto disease.

The study enrolled newly diagnosed 187 patients with Hashimoto disease defined as cases and 240 individuals with normal thyroid tests. Hashimoto disease was considered for all individuals with positive thyroid peroxidase antibodies (TPO-Ab) and/or thyroglobulin antibodies (Tg-Ab) and TSH value above the upper limit (0.2- 4.5 uUI/mL the reference range). All subject with TSH value within the reference range, negative antibodies and normal thyroid ultrasound were considered as control group. Frequency of different foods consumption in their daily life was evaluated by a questionnaire. Food groups included in the questionnaire were: fish and sea products, meat, beans, eggs, nuts, dairy and animal fat, bakery, snacks and desserts. We used a logistic regression analysis where case/control was considered a dependent variable and foods consumed independent variables to see if there was any association between different foods and positive plasma TPO-Ab and/or Tg-Ab.

The statistical data indicate that there was not significant correlation between food consumption and presence of Hashimoto disease ($p > 0.05$) The group with positive antibodies had more frequent consumption of snacks and desserts compared to control group - odds ratios (OR) > 1, and less frequent consumption of vegetables (OR < 1).

Different nutrients may have an impact on the development of thyroid autoimmunity and Hashimoto disease. The most significant result of our study was an increased consumption of desserts and snacks in Hashimoto patients and a less frequent consumption of vegetables. These results may be helpful to nutritionists and physicians who work with thyroid patients.

Key words: *Autoimmune thyroid diseases, Thyroid peroxidase antibodies, Thyroglobulin antibodies, Food groups.*