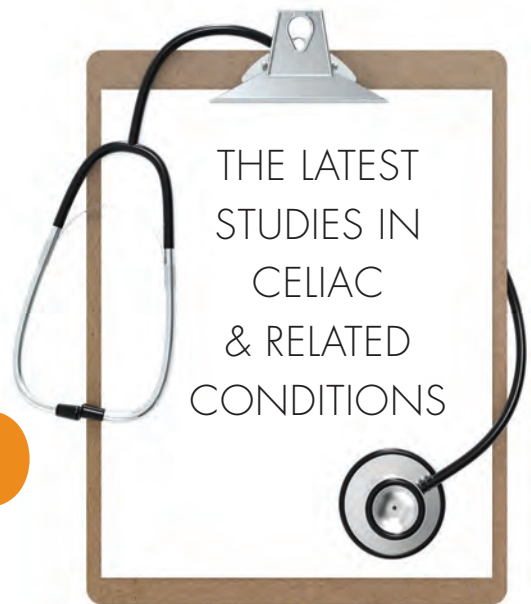


Research Roundup



In this issue's Research Roundup, we're focusing on gluten and autoimmune thyroid diseases. It has been recognized for over a decade that patients with celiac disease and gluten intolerance have an increased prevalence of autoimmune thyroid disease such as Hashimoto's thyroiditis and Graves' disease.

The connection between thyroid and gastric immunity

The association between autoimmune atrophic gastritis (inflammation of the stomach lining) and thyroid disorders has been observed since the 1960s. The expression "thyrogastric syndrome" was coined to indicate the presence of thyroid autoantibodies. More recently, it was confirmed that autoimmune thyroid disorders, in particular Hashimoto's thyroiditis, may be frequently associated with other organ-specific, immune-mediated disorders, such as autoimmune atrophic gastritis or celiac disease.

The association of Hashimoto's thyroiditis with autoimmune atrophic gastritis or celiac disease in adult patients is currently considered part of the polyglandular autoimmune syndromes which include several autoimmune disorders associated with an auto-aggressive impairment of the endocrine glands.

From a clinical point of view, thyro-entero-gastric autoimmunity may lead to potentially serious consequences like anemia, micronutrient deficiencies, and drug malabsorption, as well as an increased risk for malignancies; therefore, proactive screening of autoimmune thyroid disorders in patients with autoimmune gastritis or enteropathy should be considered.

Reference:

Thyro-entero-gastric Autoimmunity: Pathophysiology and Implications for Patient Management. *Best Practice & Research, Clinical Endocrinology & Metabolism*, 2019 Dec 11;101373. Lahner, E., Conti, L., Cicone, F., et al.

A high prevalence of antibodies against various endocrine glands exist in patients with celiac disease

The aim of the study was to evaluate the spectrum of antibodies specific to type 1 diabetes, thyroid disease, atrophic gastritis, and Addison's disease in 92 adult celiac disease patients at diagnosis and 237 adult healthy subjects.

Of the 92 celiac disease patients, 31.5 percent were positive for at least one of the organ-specific autoantibodies investigated. Thyroid, diabetes, gastric, and adrenal autoantibodies, that increase with age at diagnosis, were detected in 12 percent, 10.9 percent, 10.9 percent, and 2.2 percent of celiac disease patients, respectively. Gastric- and diabetes- rather than thyroid- and adrenal-autoimmunity seem to be specifically related to presence of celiac disease.

In conclusion, one third of adult celiac disease patients are a target for at least one organ-specific autoantibody. A systematic organ-specific autoantibody screening in these patients might be of value to promptly identify, prevent, or treat the relative diseases.

Reference:

Type 1 Diabetes, Thyroid, Gastric and Adrenal Humoral Autoantibodies Are Present Altogether in Almost One Third of Adult Celiac Patients at Diagnosis, With a Higher Frequency Than Children and Adolescent Celiac Patients. *Scandinavian Journal of Gastroenterology*. 2020 May 12;1-6. Tiberti, C., Panimolle, F., Borghini, R., et al.

The prevalence of thyroid disease in untreated celiac disease patients and the effect of gender and age on its prevalence

A study was conducted on 288 untreated patients with celiac disease (mean age, 27.9±14) and 250 controls (mean age, 29.01±13.15) referred for endoscopy. Thyroid function was evaluated by measuring T3, T4, and TSH levels, and testing anti-thyroperoxidase (anti-TPO) antibodies.

Thyroid disease prevalence was four-fold higher in patients than in controls (13.6 percent vs. 3.2 percent, $p < 0.05$).

Hypothyroidism was diagnosed in 30 patients and seven controls, while hyperthyroidism was observed in nine patients and in one control.

Test results reported a significant difference in thyroid disease prevalence between patients and controls based on gender and age ($p < 0.05$). In both groups, women were significantly more affected than men, and the thyroid prevalence was higher in younger patients compared to adults.

With the strong association between thyroid dysfunction and celiac, patients with celiac should be screened for autoimmune thyroid diseases and thyroid dysfunction.

Reference:

Comparison of Thyroid Disease Prevalence in Patients with Celiac Disease and Controls *Gastroenterology & Hepatology from Bed to Bench*. Winter 2020;13(1):44-49. Baharvand, P., Hormozi, M., Aaliehpour, A.

Prevalence of coexisting autoimmune thyroidal diseases in celiac disease is decreasing

The aim of the study was to investigate the prevalence of coexistent immune-mediated diseases in celiac patients, and changes in the prevalence of autoimmune thyroidal diseases over the last 50 years.



There is Beauty in Simplicity.

Naturally Gluten Free and The Most Awarded Potato Vodka

Please Drink Responsibly. Chopin Vodka, 40% Alc. By Vol. Imported by Chopin Imports, Manhasset, NY

Taste the Difference.

www.ChopinVodka.com
@ChopinVodka



Medical record data were collected retrospectively from 749 celiac patients in Ireland. The prevalence of autoimmune diseases was compared with previously published results from general populations. Patients were divided into four groups based on the year of diagnosis to analyze changes in the prevalence of autoimmune thyroidal disease over time.

Median age at the time of celiac diagnosis was 56 years (range 18-91 years). A total of 233 patients (31.1 percent) had a coexistent immune-mediated condition. Autoimmune thyroidal diseases were seen in 149 patients (19.9 percent), hypothyroidism in 110 (14.7 percent), type 1 diabetes in 27 (3.6 percent), psoriasis in 20 (2.7 percent), inflammatory bowel disease in 14 (1.9 percent) and rheumatoid arthritis in 12 (1.6 percent). All conditions were more common in celiac patients than in the general population. Type 1 diabetes was diagnosed mainly before celiac disease, whereas there was no such trend in other conditions. Autoimmune thyroidal diseases became less common in female celiac disease patients over time.

In conclusion, prevalence of autoimmune diseases is increased in adult celiac patients compared with the general population. However, concomitant autoimmune thyroidal diseases became less common over time in women.

Reference:

Prevalence of Coexisting Autoimmune Thyroidal Diseases in Coeliac Disease Is Decreasing. *United European Gastroenterology Journal.* 2020 Mar;8(2):148-156. Dominguez Castro, P., Harkin, G., Hussey, M., et al.

Evaluation of correlations between food-specific antibodies and clinical aspects of Hashimoto's thyroiditis

Antibodies to 125 food antigens were measured in serum samples of 74 Hashimoto's patients and 245 controls.

The authors analyzed differences in IgG levels between the two groups and evaluated correlations between food-specific IgG levels and Hashimoto's-related clinical phenotypes (thyroid hormones/antibodies, symptoms of hypothyroidism, measures of body size and blood pressure) and food consumption in Hashimoto's patients.

The increased IgG levels to 12 different food antigens were observed in Hashimoto's cases and control groups. There was no significant correlation between any of the 12 increased food-specific IgG antibodies, along with gluten-specific IgG, with clinically important phenotypes, such as thyroid hormones/antibodies or symptoms.

In conclusion, IgG response to food antigens was not significantly different between the controls and patients with autoimmune thyroid disease.

We Have the Whole Enchilada
and it's gluten free! **STARLITE** cuisine

Premium Plant-Based Frozen Food
Vegan Gluten Free Delicious
www.StarLiteCuisine.com

Interesting observations:

The negative correlation between coffee and tea combined IgG levels and number of symptoms, suggesting possible beneficial effect of tea and coffee on disease symptoms.

Distribution of food-specific IgG antibodies is comparable between Hashimoto's patients and controls, with the exception of plum and almond, suggesting their possible roles in Hashimoto's etiology or symptomatology.

- Plum-specific IgG antibodies were significantly higher ($p = 1.70 \times 10^{-8}$)
- Almond-specific IgG antibodies were significantly lower ($p = 8.11 \times 10^{-5}$)

Reference:

Evaluation of Correlations Between Food-Specific Antibodies and Clinical Aspects of Hashimoto's Thyroiditis.

Journal of the American College of Nutrition. Mar-Apr 2019; 38(3):259-266. Kaličanin, D., Brčić, L., Barić, A., et al.

NOTE: Despite this being an interesting idea regarding the driving role of foods and impaired intestinal permeability behind the development of autoimmune thyroid disease, this study was poorly designed, and the conclusions were not very reliable. Hopefully, in the future, the study will target IgG4, fecal, and salivary IgA antibodies to various foods that will more precisely answer the important questions brought up in the article. (SGF)

With the strong association between thyroid dysfunction and celiac, patients with celiac should be screened for autoimmune thyroid diseases and thyroid dysfunction.

As always, consult a medical professional before beginning any new protocol.



ABOUT THE AUTHOR:

Dr. Alexander Shikhman, founder of the Institute for Specialized Medicine, is board certified in internal medicine and rheumatology. Dr. Shikhman also launched Gluten-Free Remedies™, a line of all natural supplements which help treat the complications that can arise from celiac disease. Find Dr. Shikhman at ifsmcd.com and glutenfreeremedies.com.

SEPTEMBER

National Organic Month!



SALSAXOCHITL.COM

XO Thin.

XO Crisp.

XO Good.

XOCHITL
(so' cheel)

OCTOBER



AVAILABLE FOR A LIMITED TIME!