ALLERGIES AND OTHER CAUSES OF GRAVES’ DISEASE

Seasonal and food allergies as triggers in Graves’ disease

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The immune stimulation caused by the allergic reaction causes immune system changes that trigger and worsen Graves' disease.

Allergic Triggers

Allergies are a well-known trigger in the autoimmune hyperthyroid disorder Graves' disease. The sustained hyper-alert response in people with seasonal or food allergies leads to an erratic autoimmune response. In Japan allergies to cedar pollen have long been considered the most significant contributor to Graves' disease. In the United States seasonal allergies to ragweed, pollen and food allergens are considered common contributing factors for Graves' disease.

Allergic reactions in subjects worldwide have been shown to contribute to the development of Graves' disease and to cause disease flares in patients on anti-thyroid drugs. Relapses in patients already in remission from Graves' disease are also linked to allergic triggers. The mechanism in which allergies trigger GD can be demonstrated with blood tests.

Immune System Markers

Both elevated eosinophil counts and elevated levels of immunoglobulin E (IgE) are markers of the allergic disease process. Eosinophils are white blood cells that secrete various toxins intended to destroy foreign substances. Studies have also shown that elevated IgE and eosinophil levels directly correlate with the severity of symptoms and the occurrence of relapses in patients with Graves' disease. In studies of patients with Graves' disease and allergic rhinitis, a dramatic increase in TSH receptor antibodies is seen two months after an attack of allergic rhinitis.

Allergic Rhinitis

An attack of allergic rhinitis is typically associated with symptoms of sneezing and runny nose. But these symptoms may vary. Some patients may have headaches, nasal stuffiness, snoring and other symptoms not typically associated with allergies. Or they may demonstrate an increased eosinophil count in routine blood counts that precede the increase in symptoms.

Food Sensitivities
People with food sensitivities can have an array of atypical symptoms such as behavioral disturbances, mood changes, bloating, indigestion, nausea or constipation that they don't associate with a particular food. Gluten sensitivity is much more likely to occur in patients with autoimmune thyroid disorders. Yet, diagnosis often remains elusive unless symptoms are severe.

A food diary is helpful in determining if food sensitivities are a contributing factor to relapses and flares in Graves' disease. Eliminating certain foods for several weeks can also help pinpoint food allergens if symptoms improve. With undiagnosed seasonal allergens, Graves' disease flares or relapses that tend to occur at the same time of year suggest an allergic event.

**Triggers of Graves’ Disease**

Common triggers for Graves' disease include stress, allergens, excess dietary iodine, low selenium levels, sex steroid hormones, and infectious agents. Infectious agents can trigger autoimmune disease and cause flares related to the organism itself or the immune response launched by the infection. Antibiotics and other medications used to treat infection can also alter the immune response.

**The Immune Response**

Immune system cells known as T-helper-lymphocytes normally regulate the immune system's response. These cells patrol the body scouting for foreign antigens, including pollen and infectious agents. Normally, T-cell levels are kept in control by the immune system as it strives to keep the body healthy. Suppressor T-cells help prevent the growth of tumors and autoreactive cells.

However, protective immunity by the immune system has the potential for error, and in some autoimmune disorders such as Graves' disease, a decreased number of T-suppressor cells allows autoimmune reactions to proceed unchecked. During the allergic response, the normal regulatory mechanisms presented by T-cells are unable to function properly, allowing for autoantibody production.

**Resource:**


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