



AUTOIMMUNE THYROID DISEASE

Hashimoto's thyroiditis is associated with other autoimmune disorders more frequently than Graves' disease

BACKGROUND

Hashimoto's thyroiditis is the most common cause of hypothyroidism in the United States and Graves' disease is the most common cause of hyperthyroidism. Both of these are autoimmune disorders, meaning that they are caused by the body's immune system producing antibodies that get confused and attack the body's own tissues. In general, once someone has one autoimmune disorder, they are at higher risk of developing a second autoimmune disorder. This study was performed to determine how common other autoimmune diseases, such as type 1 diabetes, celiac disease, Addison's disease and pernicious anemia, occur in patients with either Hashimoto's thyroiditis or Graves' disease.

THE FULL ARTICLE TITLE:

Wiebolt J et al. Clustering of additional autoimmunity behaves differently in Hashimoto's patients compared with Graves' patients. *Eur J Endocrinol* 2011;164:789-94. Epub March 4, 2011.

SUMMARY OF THE STUDY

A total of 882 patients were studied: 523 patients with Graves' disease and 359 with Hashimoto's thyroiditis. The patient's average age was 50 years. Type 1 diabetes was

most often associated with the thyroid disorders and was more common in patients with Hashimoto's thyroiditis (15.9%) than Graves' disease (9.2%). Similarly, Addison's disease was more common in patients with Hashimoto's thyroiditis (5.3%) than Graves' disease (1.7%). There was no difference between the occurrence of pernicious anemia or celiac disease within the two thyroid disorders.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Type 1 diabetes and Addison's disease more commonly seen in patients with Hashimoto's thyroiditis than Graves' thyroid disease. This study shows that doctors certainly need to be aware of these two disorders in patients with Hashimoto's thyroiditis or Graves' disease. Further, this study suggests that patients with Hashimoto's thyroiditis should be periodically screened for diabetes and adrenal insufficiency. Further studies are needed before making this a general recommendation.

— Heather Hofflich, DO

ATA THYROID BROCHURE LINKS

Thyroiditis: http://thyroid.org/patients/patient_brochures/thyroiditis.html

ABBREVIATIONS & DEFINITIONS

Hashimoto's Thyroiditis: the most common cause of hypothyroidism in the United States. It is caused by antibodies that attack the thyroid and destroy the gland.

Graves' Disease: the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

Antibodies: proteins that are produced by the body's immune cells that attack and destroy bacteria and viruses that cause infections. Occasionally the antibodies get confused and attack the body's own tissues, causing autoimmune disease.

Autoimmune disorders: a diverse group of disorders that are caused by antibodies that get confused and attack the body's own tissues. The disorder depends on what tissue the antibodies attack. Graves' disease and Hashimoto's thyroiditis are examples of autoimmune thyroid disease. Other autoimmune disorders include: type 1 diabetes mellitus, Addison's disease (adrenal insufficiency), vitiligo (loss of pigment of some areas of the skin), systemic lupus erythematosus, pernicious anemia (B12 deficiency), celiac disease, inflammatory bowel disease, myasthenia gravis, multiple sclerosis and rheumatoid arthritis.

Type 1 Diabetes: diabetes caused by antibodies that destroy the insulin producing cells of the pancreas. Patients with this form of diabetes require insulin to control their blood sugar.



AUTOIMMUNE THYROID DISEASE, continued

Addison's Disease/Adrenal Insufficiency: a rare, chronic endocrine disorder where the adrenal glands are destroyed by antibodies and do not produce enough steroid hormones (glucocorticoids and often mineralocorticoids).

Celiac Disease: an autoimmune disorder of the small intestine that occurs in genetically predisposed people of all ages from middle infancy onward.

Pernicious Anemia/B12 Deficiency: caused by antibodies that destroy the cells in the stomach that produce a protein that is needed for the body to absorb vitamin B12, causing a severe anemia (low blood count).